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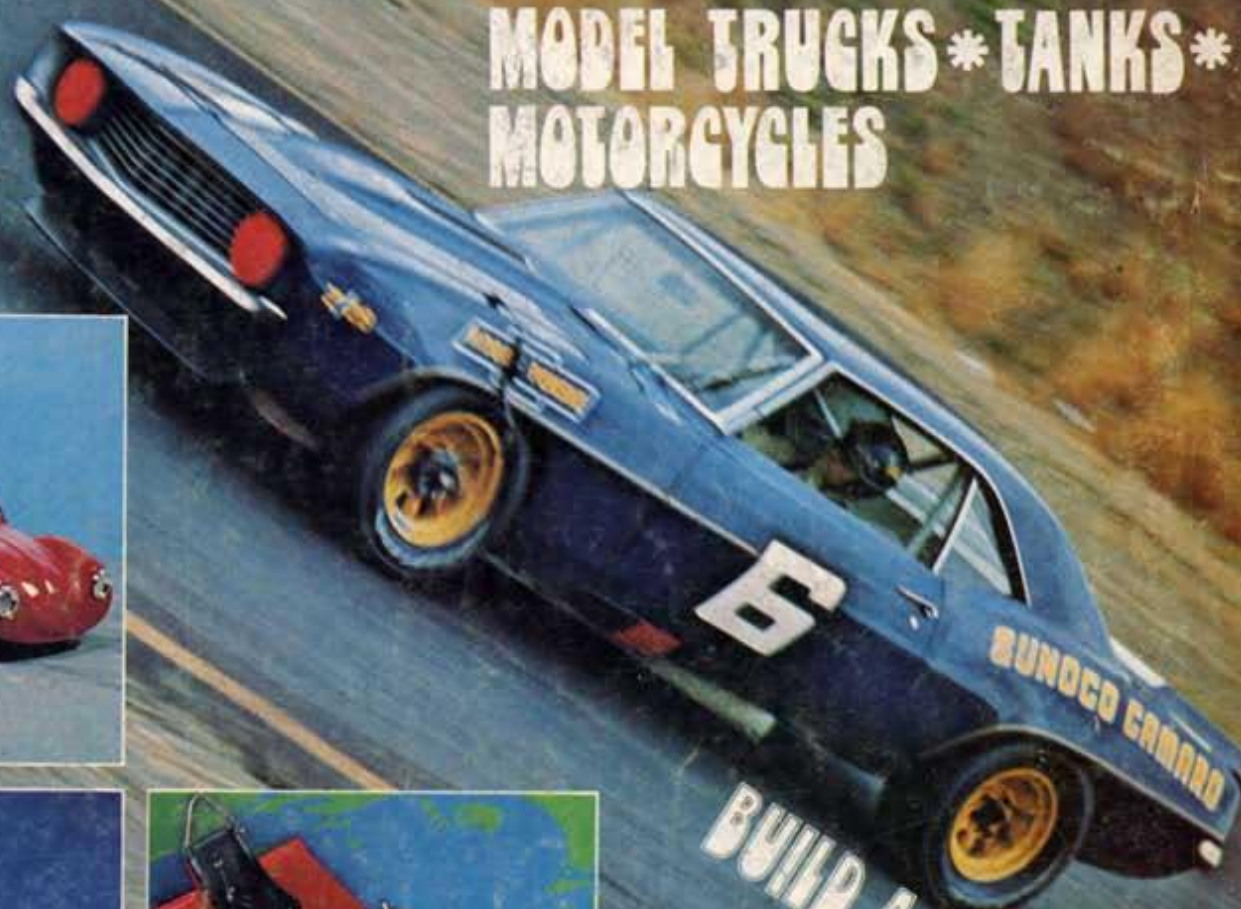
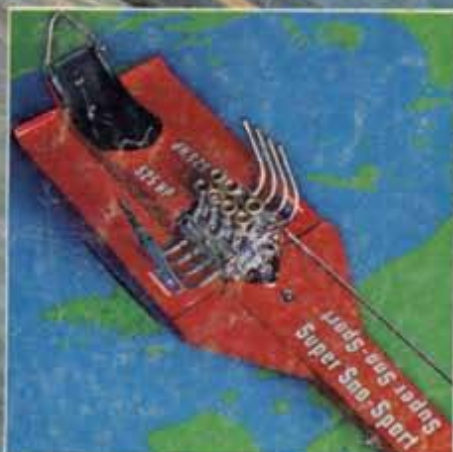
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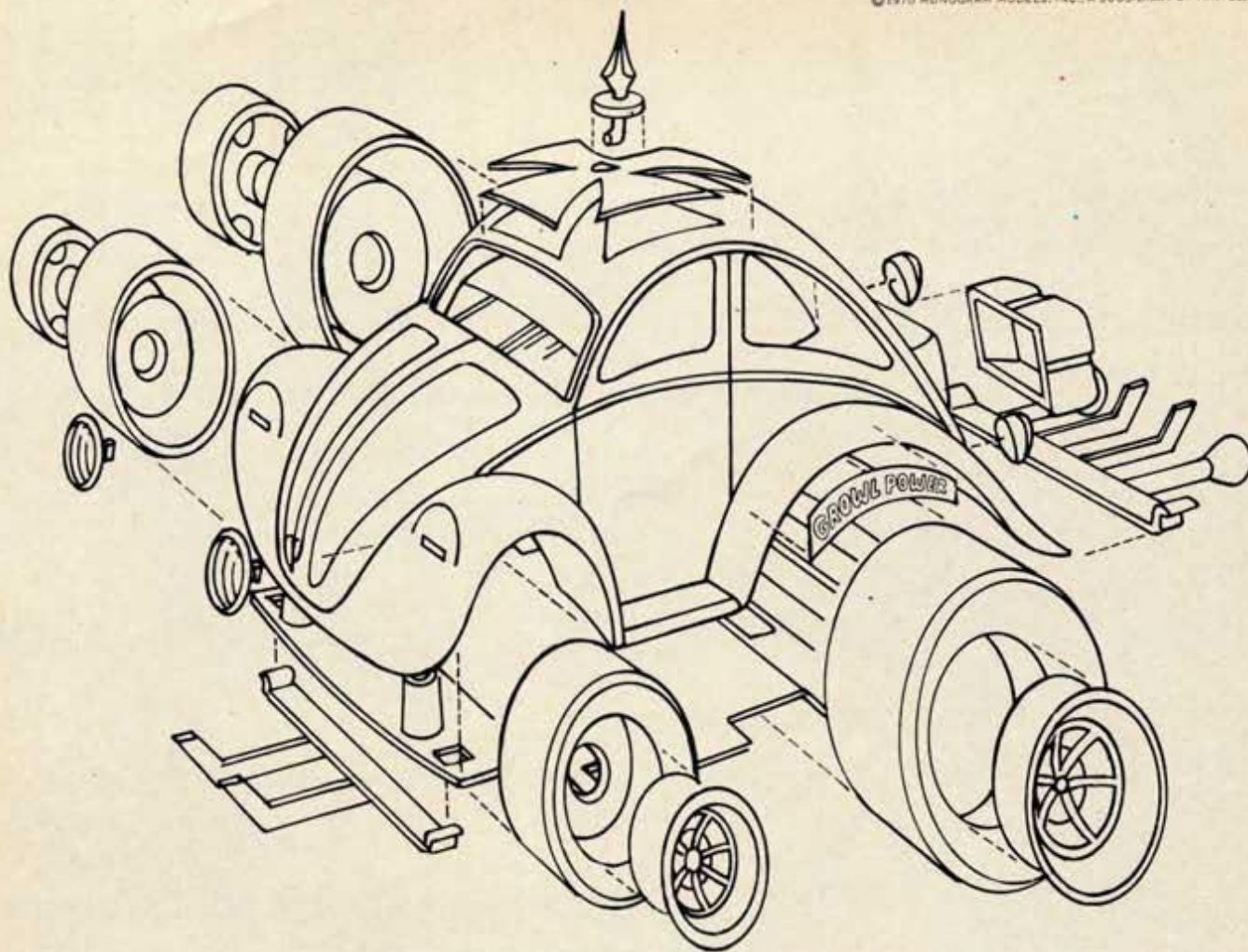
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MODEL CAR SCIENCE is published monthly by Delta Magazines, Inc. Executive offices, 131 S. Barrington Place, Los Angeles, California 90049. Telephone 213/476-3004. Single copy price: 50 cents. Second class postage paid at Sparta, Illinois. Subscription rate: 12 issues for \$5.00, U.S. and possessions; 12 issues for \$6.00, all foreign countries and Canada. All editorial contributions and advertising inquiries should be addressed to Raymond Hoy, Editor and Advertising Manager, P.O. Box 1821, Thousand Oaks, California 91360. Telephone 805/495-7282. Unsolicited contributions should be accompanied by return postage and Delta Magazines, Inc. assumes no responsibility for loss or damage to such unsolicited material. Printed in U.S.A. Copyright 1970 by Delta Magazines, Inc.



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SMALL STUFF

By Bill Von Staden

Before I go off the deep end this month, some apologies are in order. The article I wrote on making the TycoPro handle didn't appear in the June issue. The photos just weren't right and the entire sequence will have to be reshot. Apology number two. The Parma HO hand control may not be the absolute best. Seems there is a Mr. Gorski who can lay claim to that title, but his prices are rather high. That is not to say his controllers are overpriced; you do get what you pay for. It's just that I feel kinda funny using a \$25 control when my car is worth only \$15!

Now with this out of the way, I can lay some news on you. Hobby House of Monroe, La., has some new silicone tires available to the HO racer. Their "Can-Am" tires now come in two new sizes to fit on TycoPro and Tuff One hubs. The big news here is with the T.P. jobs. They are available in either a regular or soft silicone compound. The regulars are black, the softies gray. They even had some super soft ones in red, but Mr. Harrison informs me that these will probably not see production. (I wish they would, and in black.) The tires for the Tuff One come only in a soft compound, and they are black. In any case, the soft tires wear very quickly and should only be used in actual racing. They also have a tendency to stretch and rotate on the hub. When they lose their shine or start to stretch, you get a new pair. The T.P. tires are \$.60 a pair and the Tuff ones are \$.50. This "compound" idea looks really great to me. I wish AJ's would offer something similar in their tread-on line of silicones. Different widths and diameters wouldn't be a bad idea, either.

As long as I've mentioned AJ's, I'll tell you about something else they have out. It's a self-centering, independent rotating front wheel set. No samples were sent, nor was any price mentioned. I can't tell you how good they are, but they look nice. AJ's has also come out with set-screw sponge and silicone tires for the Aurora Formula I car. They are typical of AJ's products, quality-wise, but still there's the matter of the \$1.79 price tag. I guess it can't be helped. I do wish some other manufacturers of HO speed parts would produce some parts for the Mini Jet, however.

Dreher Custom Racing Products (6957 Ash Ave., Dept. MCS, Gary, Ind., 46403) sent along one of their new front end sets. It consists of a

threaded axle, two jam nuts, two springs for self-centering action, and the wheel/tire units themselves. Now this is what I call a front end set! The tires are 3/16" wide small diameter silicones. Yes, silicones, but they are taper cut so that only the outside edge actually touches the track. The aluminum hubs have five holes in them, creating a look that almost shouts concours. The whole setup is sprung to be self-centering, and the tires are soft enough to absorb shocks. \$1.40 gets you the best front end set I've seen so far. Only one question, Mr. Dreher, when will matching rears be available?

I have a report on the Cobramite. I think the concept is a good one, but in my opinion, it's not worth \$4. Before they will even run you have to replace the pickups with TycoPro units. (Tom Lowden, I thank you for that one.) Then the tires should be replaced with AJ's press-on 007s. I made some runs down the drag strip and made several observations. Gearing is very high at 2.5 to 1, so it didn't really start moving until around the nine foot mark. The Cobramite runs very smoothly and almost silently. And last of all, it showed a definite tendency to overheat after several runs back to back. On the road course it had no punch at all, due to the gear ratio. It didn't handle that badly, but after two laps the guide pin snapped and forced me to call it a day. The paint job on the body was very nice, but the ragged edges on the wheel wells and the staples in the body sides detracted from the appearance of the car. So maybe with some work the Cobramite can become a winner.

I have mixed emotions about the Auto World Swivel-Loc guide. It's a guide shoe rather than a pin that fits the Aurora cars. The "lock" part of it is that it has a limit to how far it can be turned. Thus a car using one can only spin out so far before the guide stops the slide and keeps you going the right way. In theory this is just fine; it should limit your spin to such and such an angle and allow you to continue on your way without "losing it." But in practice you don't spin out slowly, it happens very quickly, and the guide (of nylon construction) bounces you back, HARD! There is no way for me to describe this phenomenon to you. You couldn't even get the idea by watching someone else drive a car that was Swivel-Loc equipped, you just have to do it yourself to understand. I've actually put down my controller and gotten up to return my car to the slot before I discovered it hadn't deslotted! The guide sells for only 29¢, so if you buy one and decide you don't like it you aren't out a whole bunch of money.

Aurora has introduced the Mustang Mach 1, the AMX and the GTO convertible (with the top up, no less!) I like the AMX, and I'm sure the Mustang will be very popular, but a GTO convertible? I wish it had been a hardtop, and possibly a "Judge" at that. C'mon guys, can't you bring us a hardtop, too? And wouldn't it be easy to produce a Chevelle coupe since you already have the El Camino? Others we'd like to see are a Chevy II, a Maverick and a Duster. These three would make wailing Pro Stockers for HO drag racing. The "Big A" has also come out with a McLaren and a Ford "J" Car that have working head and taillights, if you go for that sort of thing. One interesting note, however, is that the car contains only one light bulb. Through the use of "fiber optics" (see your physics book, I'm busy) all four "lights" are lit. What it amounts to is that the front and rear lenses on one side of the car are molded in one piece of plastic. The light from the bulb, which is over the front axle, enters this clear plastic rod, and the rod "carries" the light to both lenses.

Faller, the manufacturer of those German HO cars, has come up with their own version of a Formula I car. It utilizes a frame similar to that of their regular cars, but is narrowed to fit a smaller body. Since they use virtually the same motor as the standard Faller, they should be as fast as the Faller and faster than the Aurora Mini Jet. *Should be.* They seem to have pickup problems slowing them down. Since the pickups start tucked in and splay outwards as they go forward (as viewed from the top,) I don't think they touch the power rails correctly. But even with problems, I don't think it is fair to compare the Faller with the Aurora. The Faller is a lot wider than the Mini, which we already know is too large to be scale. But if you allow the Faller body to run, I'm sure a modified Thunder Jet could be made to fit, and it would be quicker than the Mini or the Faller. I'm just waiting for someone to squeeze a TycoPro in one and shut everybody up! Really, I think any Formula I class should have only the cars that are *as close to scale as possible*. At present it's the Aurora FI.

The Faller does have some unique features. It doesn't have any gear plate clamp. The plate is held down by two countersunk screws, one at the left front and one at the right rear of the gear plate. The large nylon idler gear is secured by means of a rivet which passes through it. The rivet is removable. The car has no rear body mount, only the front one. The driver mounts to the gear plate! When the

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SMALL STUFF

body is lowered over the chassis, he pops through the cockpit where he belongs.

Mura has some hot parts for the TycoPro available. The rewind, epoxied, polished and balanced motor is already out, but I haven't had a chance to test one yet. That big brass pan with the hole in the middle should be released soon. It is supposed to be quite heavy. Word has it that with the hotter motor from Mura in your T.P., you can use a more conventional hand control (like 60 ohms). This, combined with that heavy pan they offer, makes the car driveable. They should have rewind armatures, silver and copper brushes, and brush springs available soon. Other than allowing us to use a lower ohm control (for a stock T.P. you need 85 or more ohms), I can't see how we can possibly use a rewind armature. The TycoPro is too fast now; imagine one with a rewind!

LaGanke also has some parts available for the TycoPro. For 49¢ you can get some sponge tires that pop right on. But then you're stuck with those Tyco hubs that strip so easily. For \$1.25 you can go for set-screw wheels with either sponge or silicone tires on them. Although I haven't seen any as yet, I'd say this is your best bet. They also have a brass drop arm weight for 30¢, and a large brass drop arm weight for 50¢. Oddly enough, most of the LaGanke stuff for the T.P. is for the chassis, while Mura seems to be concentrating on the motor. Oh, and for the Aurora T-Jet, LaGanke has a silver advanced commutator for \$1.00 and some "over axle front weights" for 39¢ a pair. The comm isn't bad, but for only nineteen cents more you can afford the Champion, which has better plating and smaller segment gaps (.008"). The one unique feature on the LaGanke is that it has less advance, I'd say possibly only 5°. The axle weights are simply brass rod cut to size. They wedge between the "frame rails" above the front axle on Aurora cars. I still can't figure out why they're 39¢ per pair.

Help Wanted Dept.

Mark Sanders, 1525 Dieter St., St. Paul, Minn., 55106 would like to start a club. All those interested should contact him as soon as possible.

Tom Doerr would like anybody in the Dover, N.J. area interested in both road and drag racing to get in touch. Tom lives at 316 Rt. 10, Dover, N.J. 07801.

A drag meet will be held in late

Rumors Dept.

Aurora-West controller out soon, "perfect in every way".... Mura will have super magnets for the T.P., and maybe a brass drop arm.... AJ's might come up with set-screw fronts.... Many, many Lancer bodies are on the way.... ARCOs may go up in price if they ever do arrive.

Well, that's it for this month, gang,

Track of the Month....

..... belongs to Mr. David Yetman, 1 Gage Road, North Reading, Mass. 01864. The track is thirteen feet long and six feet wide at one end, tapering to three feet wide at the other. It took six weeks to build, including the full scenery. As you may have guessed from looking at the picture, Mr. Yetman is a converted model railroad nut. Seems that they always have the most detailed layouts. The shot shown here is an overall view

but I'm happy to say I'll see you in the next issue.

July or August. Information, rules and entry blanks can be obtained from Russell Baldwin, 1710 Nottingham Ct., Wichita, Kansas. Please send self-addressed, stamped envelope when writing. Definite date should be set by the time you read this.

of the track, showing about two-thirds of the course.

Anyone in the New Jersey area looking for a place to race should try Jersey City Hobby Raceway. Races are held every week on Friday night, and if you place third or better you get your choice of a trophy or merchandise. I hope this brings some of you Jerseyites out of hiding; I'm sure there are a lot more out there.



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THE TECH SHEET

I guess I've come full circle. I've run about every scale known, but for the first time I've become a dedicated H.O. fan. Now after all this time I'm building H.O. track. I have an H.O. test track to evaluate H.O. equipment, but it is rather small. Now I'm going to the 4 x 16 foot type of track layout and, as I solve the problems that will come up in its building, I'll be better able to advise you how to solve similar problems you have in building your track.

Probably there are a lot of people like me who became interested in H.O. directly because Tyco came out with their Tycopro cars. Now other manufacturers that had never made anything in H.O. scale are coming out with various products to fit existing cars like Tyco's and Aurora's.

Riggen now has a set of rear and front tires on aluminum hubs. LaGanke, who has been making replacement parts for Aurora cars for a long time, some rear sponge replacement tires to fit on the Tycopro wheels as well as set-screw front and rear tires and hub combination. There are also various weights available to add to the drop arm of Tyco, and believe it or not even an adapter so you can fit Tyco bodies to Aurora chassis for 39 cents.

Before I get off the subject of LaGanke Products I guess I should answer some of the most asked questions that come across my desk. One of the most frequently asked questions is, "How fast is a LaGanke arm?" Or, "How does LaGanke arm compare to say the 'Tuff One' by Aurora?"

Well, the LaGanke armature checks out at six ohm and the Aurora Speedwound, Wild One, Tuff One (Aurora's armatures are all the same) check out at seven ohms each. The Aurora's have different gearing in the Tuff One and Wild One with 12 tooth pinion available on Wild One and 14 tooth in Tuff One. The LaGanke armature appears to have less wire on it than Aurora's. As you might expect, with similar ohm readings, the LaGanke has a very very slight edge on the Aurora cars down a dragstrip if both are equipped with similar gearing and tires. Both cars draw about a half amp of current, which is sensible since hotter winds would require more than one power-pack.

Remember, these cars and replace-

ment armatures are designed strictly for home racing, which implies small layouts. The Tuff One is better suited to smaller tracks because it took 3-1/2 sections (nine inch straights) to stop and the LaGanke took six sections with regular Aurora magnets and almost but not quite five sections to stop when LaGanke Tiger magnets or Auto World's magnets were used. So these magnets are stronger than stock ones.

The LaGanke on the other hand uses less wire of a larger size, so the armature is lighter which helps acceleration (provided the car is not too heavy).

I want to be quick to point out that I am not saying this one is good and one is bad. I do not believe in bad-mouthing any products and it is dangerous for either a writer or the reader to draw snap judgments from generalizations. What I am attempting to point out in this discussion is that both the Aurora and LaGanke armatures are good products while each has its own individual differences. I am trying to put each product into its proper perspective. Both armatures are aimed at the home market, and both have good quality with sufficient speed to satisfy the average H.O. fan. If you're going to compare these two armatures with some H.O.C.C.I. handwound super armature with say No. 35 wire (a rather unfair comparison I might add), then you might just be in for some surprises. The armature with No. 35 wire would be in the neighborhood of about two ohms and draw between 1-1/2 and two amps, but it isn't all that much faster than either the LaGanke or the Tuff One. The rewinding of Aurora type H.O. armatures with larger sizes of wire does not yield performance increases in the same proportion as they do with larger scale motors, say 1/24th.

In order to clarify some points regarding the differences between the different Aurora cars, I would like to mention that the Tuff One has much better magnets (which are radially oriented) than the Wild One, so larger pinion gears can be utilized along with smaller, wider sponge tires. I have found that I can obtain better overall performance from the Tuff One if I switch to any of the available sponge tires on aluminum hubs such as Auto World, LaGanke or Twin K's. This switching to sponge rubber of the three brands just mentioned is true of all H.O. cars now being sold. The one great advantage of sponge tires over silicon is the fact that they will take the "bump" easier when the car's tires contact the raised pickup rails.

As most readers know, I deal in facts rather than opinions and a tech

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TECH SHEET

sheet, I feel, should properly concern itself with technical matters and avoid discussions based primarily upon opinions. For this reason I feel that a clarification is in order regarding statements made in the *Small Stuff* column in the May issue concerning the aforementioned Aurora cars and also opinions expressed about the Tycopro cars.

First of all let's face the facts concerning Aurora equipment and Von Staden's statements that "the present Aurora chassis' days are numbered" or "need for hotter wind."

The present Tuff One draws a 1/2 amp when running, so a hotter wind would require a larger powerpack for a simple two lane racing set. If we view the Aurora operation, in total, they build a home racing set designed to appeal to about a 12 year old youngster. Aurora, as well as all the other H.O. set manufacturers, build a TOY designed to cover a broad segment of the younger generation. The cars run reasonably fast and handle fairly well on short home racing tracks and the fact that pro driver exist and rewind their own motors, add bellypans, etc., is of little concern to Aurora. As I stated earlier, the super hot rewind doesn't really run all that much faster than the present Tuff One when you put it in a matched race.

The present investment in tooling discourages making a totally new car, although Aurora might just go ahead and make a change to a new motor-chassis combination (I have no knowledge of this one way or the other). But we must bear in mind that the *present* cars are faster than available track configurations allow. There are no 15 or 18 inch radius banked curves available to make wide sweeping turns as found in larger commercial 1/24th racing centers. The majority of H.O. sets are spread out on the living room floor or on a 4 x 8 piece of plywood in a garage or basement. So if we view the H.O. market from this overall standpoint it tends to soften or dampen some of Von Staden's expressed opinions of Aurora's operations.

Von Staden's opinion that the Tycopro won't handle is a rather harsh statement. The *fact* is, Tycopro cars will handle reasonably well, as is, but handling can be improved just like any other brand of H.O. Car. The Tycopro is fast, I'll admit, and as I stated in my previous review of this car, handling can be improved by adding weight to the droparm. More weight the better, but this is only a partial answer to the problem.



A better method is to cut out the center section of the bellypan and install a long droparm hinged right at the end of the motor. You can use 1/16" pin tubing over a small diameter piano wire for a hinge. I removed the underside rear of the metal case (it's just a flap, really) to make room for the pin tubing. The whole operation is not difficult, nor does it require a great deal of skill or time. I found that placing the hole for the guide post a little forward from its original position on the Tycopro car gave additional handling qualities. The Tyco car in this new configuration had handling qualities to match its speed ability.

We must remember also that Tyco is faced with the same market situation that Aurora has, but Tyco has proven to be more progressive since an experienced H.O. racer (Pat Dennis) is running the operation. I have no specific information about Tyco's future plans other than the comment Pat Dennis made that the present car is only the beginning and that improved versions are on the drawing board.

So in conclusion I would just like to state that I'm not going to enter into an editorial debate with Von Staden or anyone else, but you, the reader, should be aware of the facts and decisions faced by H.O. manufacturers viewing the toy market from their point of view and not simply from an enthusiast's standpoint. If you stop and think about this it tends to soften the harsh criticism sometimes expressed by writers.

That modified Tyco car I mentioned previously is equipped with the Kirby clear plastic Autocoast Titanium 22 body. This body allowed me to place the pickup guide a little over 1/8 inch forward of where it was originally in Tyco's car. If the name Kirby doesn't ring a bell with you, don't let it worry you. Jim Kirby was with Russkit since I guess way back when slot racing was just getting started. Jim is now on his own over in South Gate and he makes bodies in 1/24th and 1/32nd as well as H.O. scale. His first six releases will be the Ferrari 512, the Autocoast Ti 22, the Trans-Am, Firebird and Camaro, a V.W. and wonder of wonders a McLaren M8C. This is the latest version of the McLaren and all of these bodies are slightly wider than other brands of clear plastic bodies I've tested.

After I painted the Ti. 22 body I cut two very thin strips of Velcor material and stuck one on the body and the other on the plastic frame with contact cement. It holds the body perfectly. Now, before you ask, Velcor is a nylon "wooly" mesh type of fabric used on drapes and sometimes the backs of adjustable golf caps.

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THE ART OF SCRATCH-BUILDING

By Phil Jensen

PHIL JENSEN has been a scratch-builder for more than 20 years, and is well known for his contributions to various automotive and modeling magazines. He was one of the founders of the International Association of Automotive Modelers, in 1951, and has been the Editor of the club BULLETIN since its beginning. Phil lives with his wife, Meg, and toy French Poodle, Muffin, in Newport News, Virginia; he's employed as a technical writer at the shipyard there.

Just what is "scratchbuilding", anyway? Oddly enough, you won't find a definition in your dictionary, although the term is well known among modelers. In the strictest sense, it's the construction of a miniature replica —

in our case, a scale model of a motor vehicle — from such raw materials as wood, metal, cardboard and plastic. The scratchbuilder doesn't start with a kit. He uses sheet stock, rod, tubing, wire, and a wide selection of odds and ends — things designed for other uses — limited only by his own imagination and ingenuity. For example, I know one top-notch scratchbuilder who uses wooden curtain rings as tires!

But why scratchbuild? Hobby-shop shelves are literally groaning from an overload of excellent model car kits — more than the average modeler could ever hope to assemble in his entire lifetime. The most obvious reason, of course, is that the scratchbuilder needn't be limited by kit manufacturers' choices. He can build a model of any car or truck or bus that was ever made, if he can locate sufficient information. That, however, isn't the primary reason for many of us.

Consider, for example, the thousands of many excellent picture prints available for decorating your home. If you have an empty spot on the wall, you can buy one or more of these, all framed and ready to hang. Or, if you want something a bit more personal, you can buy and complete a "paint-by-numbers" set. But there are many,

many people, all over the world, who prefer to paint original pictures, not just for sale but to satisfy their own creative urge. And that's what scratchbuilding is, too. It's a way to satisfy your creative urge by producing, with your own hands and through your own ingenuity, a unique three-dimensional miniature replica of a motor vehicle.

There are a number of scratchbuilders whose work may be likened to that of the "Old Masters" in the world of art. Michel Conti, Manuel Olive, Dick Feil, Jim Ison, and Don Oreck (to name only a few), all produce models that are nothing short of masterpieces. From time to time, we'll show you examples of their work in this column. But don't look at the photos and say to yourself, "What's the use? I could never equal such craftsmanship!" Does an amateur artist look at the work of Michaelangelo, Rubens, Picasso, or VanGogh and then throw down his palette and brushes because his work doesn't equal theirs? Of course not! He studies their techniques and tries to learn through his study while, at the same time, he's developing techniques of his own. Scratchbuilding, like painting, is a challenge — a challenge to learn, to develop one's own techniques, to im-

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THE ART OF SCRATCHBUILDING

prove constantly.

Scratchbuilding takes a lot of time? Of course it does! I've found that more than 300 to 400 hours are required to turn out a fully detailed scratchbuilt model. But those 300 to 400 or more hours needn't be all at one stretch! I have one "scratch" model — a 1/16th scale Vauxhall 30/98 sports tourer — I've been working at, on and off, for the past seven or eight years. I'm in no rush to finish it; I work on it only when I'm in the mood. Don't ever think you need a lot of time for scratchbuilding; there's no scheduled completion date, no bonus for finishing your model tomorrow or next week or next month. Work on it when you can, a half-hour or an hour at a time if need be.

"But I could never be a scratchbuilder!" you protest. Sure you can! If you can assemble a plastic kit, you have the intelligence and aptitude to scratchbuild. And you don't need a big workshop or an expensive array of tools, either. We'll talk more about tools later on, but you'd be surprised how many models I've "scratched" using simple hand tools and working on an old card-table.

When I took up automotive modeling as my Number One hobby, just 20 years ago, plastic kits hadn't even been invented yet! The Hudson Miniatures "Old Timer" kits (produced by Oscar Koveleski's dad) that has been introduced a year or two earlier did contain a few plastic detail items, to be sure, but most of the parts had to be formed from cardboard, wood and wire. The instruction sheets were clear and complete, but some degree of skill was needed to produce a passable model. Furthermore, while the "Old Timers" kits were fine (if your interest centered in the antique car field), many of us were more enthusiastic about sports cars, Grand Prix machinery, or the great classics. If you wanted to build models of these latter types, you scratchbuilt, period!

The first step was to dig up all the information you could on the car of your choice — and this usually turned into a search akin to looking for the proverbial needle in a haystack! Eventually, with plenty of tenacity and luck, you were able to assemble enough photos and dimensions to work up a rough set of working drawings. At that point half the battle was won, and actual construction, in

comparison, seemed like a breeze! It was that difficulty of obtaining information on, and pictures of, the cars we wanted to build that led directly to the establishment of the International Association of Automotive Modelers, Incorporated. As one of the co-founders of IAAM, I've seen its fields of interest broaden, over the years, to embrace all facets of the model car building and collecting hobby. Still, it remains the one source of information for scratchbuilders, and I'll have more to say about this organization in future columns.

"The Art of Scratchbuilding," then, will be both a "how to" series and a forum. Month by month we'll examine various methods of making the parts of a model car and pass along tips for both the beginner and the expert. We'll welcome reader participation, either in the form of suggestions for methods you've developed in your own "shop," or questions you may have about scratchbuilding. I'll try to answer you directly if you'll enclose a stamped, self-addressed envelope with your letter and keep your queries brief and to the point. Questions and answers of broad general interest will be published in this column. Also, let us see what you're doing! Clear, sharp photos (in black and white) of scratchbuilt models are required — I can't promise you any prizes, but you'll have the satisfaction of seeing your work in MCS!

Now, a few words of encouragement for those readers who have never tried scratchbuilding but who would like to give it a whirl. First, don't set your sights too high. Select a simple subject to start with — a prewar Grand Prix car is a good choice because the body shape is straightforward, suspensions are reasonably elemental, and you needn't wrestle with the intricacies of fenders, running-boards, and lights. I'd suggest it be a "solid" model, rather than one built up on a frame and featuring engine details. As your skill progresses, so can the details you work into your models.

Second, although there's never any excuse for sloppy workmanship, don't be discouraged if your first few efforts don't turn out as well as you hoped. This is true of any hobby, and doubly so in the hobby of scratchbuilding. The important point is to *try harder next time*. Each model you build will be better if you'll learn from your mistakes. Also, never hesitate to scrap a part that's inadequate or incorrect. Much as you may hate to throw away something that's taken several hours to produce, the odds are that the whole appearance of the model will be spoiled by that one "bad" part. Con-

sidering the investment in time you'll have in the whole model, it's better to start over and get it right!

Third, I've always found it important to learn as much as possible about my subject, no matter what I was building — cars, trucks, ships, or airplanes. You'll find you can do a better job and will enjoy your work more if you'll take the time to read everything you can find about the car you're building... the history of the company that made it, its racing successes (if any), the part that specific car played in the development of the make, the names of famous drivers or people who sat behind its steering-wheel. In your research, keep your eyes open for facts that will be helpful in building a model — such things as color-schemes, racing numbers, mechanical features.

I'd like to be able to suggest a list of good books on scratchbuilding that would give you some insight into the hobby and get you started. Unfortunately, only three books were ever published that I know of, all of them in England, and two are out of print. They are:

"Miniature Car Construction" by C. Posthumus, published by Percival Marshall & Company, Limited, 23 Great Queen Street, London, WC2, England (1949)

"Scale Model Cars" by Harold Pratley, published by The Model Aeronautical Press Limited, 38 Clarendon Road, Watford, Herts, England (1956)

"Motor Modeling" by Rex Hays, published by Arco Publications (address not given) (1961)

"Motor Modeling" is distributed in the United States by Mark Haber and Company and, if available, lists at \$1.95. Copies may be available through firms specializing in automotive books or through the I.A.A.M. Book Service, c/o Mrs. Betty Shearier, Dept. MCS, 2725 West 43rd Street, Chicago, Illinois 60632.

Bookstores in Great Britain that advertise in such automobile magazines as *Road & Track*, *Sports Car Graphic*, etc., may be able to obtain used copies of the other two books for you. "Motor Modeling," however, is probably the most comprehensive and easiest to follow.

Next month, we'll talk about scale drawings — where to get them, how to interpret them, and how — if need be — you can "roll your own." If space permits, we'll also go into the subject of tools — how to choose them, use them, and take care of them.

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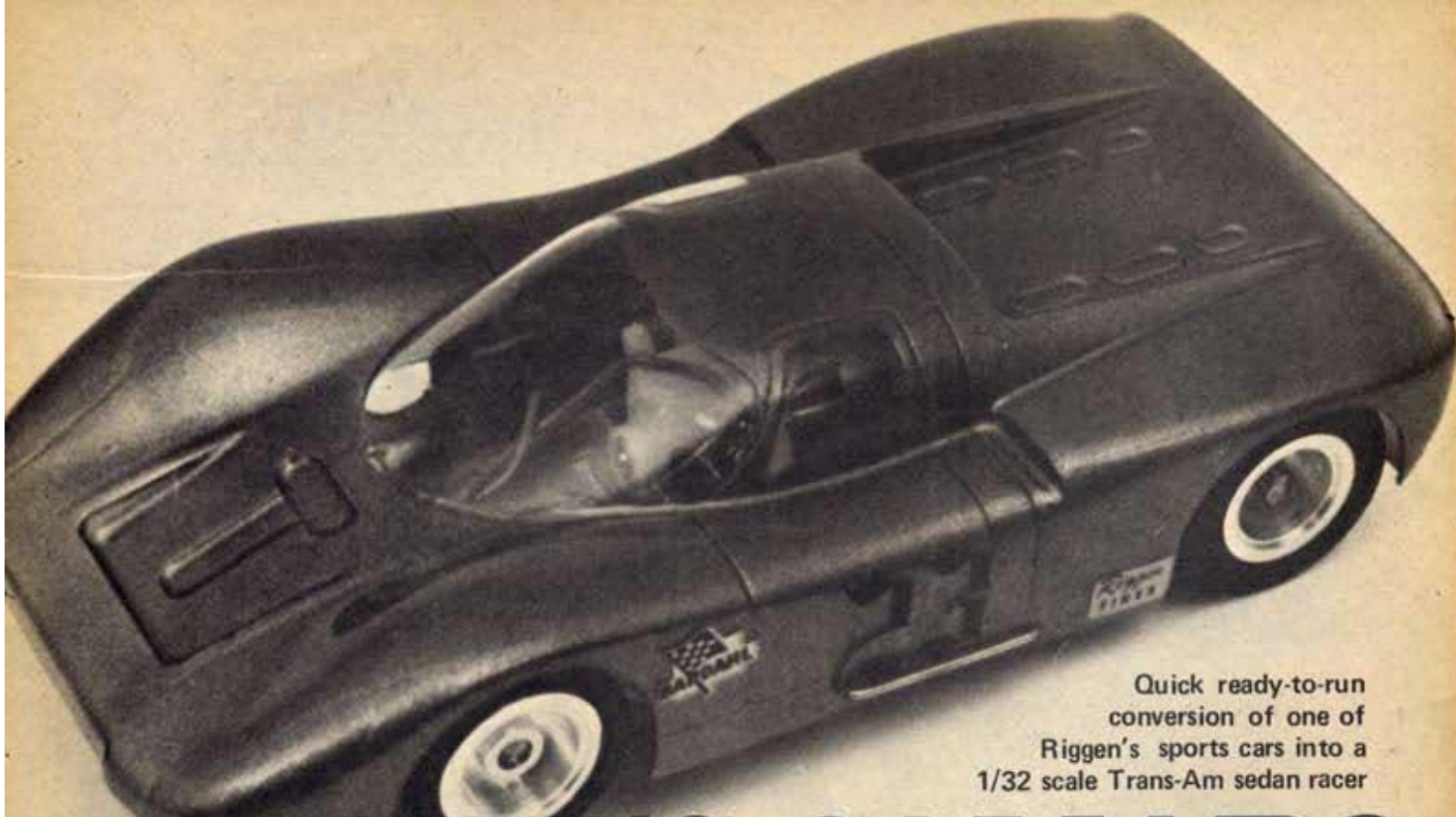
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PENSIKE'S CAMARO

In full-size road racing, the writing on the wall seems to be that the sedan racing cars will become as important to the right-left racers as funny cars are on the strips. As the national series of Sports Car Club of America road races for Ponycars, the Trans-Am series, enters its fourth year, full factory backing is evident from Ford, American Motors, Dodge, and Plymouth, with "unofficial" entries from Chevrolet and Pontiac.

Ponycar racing is, then, the Coming Thing in full-size racing and it will be the next area of excitement in model car racing as well.

Almost any brand of 1/32 scale home set car can be adapted to ponycar racing by stretching its wheelbase about one-fourth inch and adding one of Revell's 1/32 scale hard plastic bodies. At present, Revell is the only firm that has accurate 1/32 scale models of the Ponycars. A Camaro, Firebird, and Javelin are offered as part of their dollar series of display model kits. The three are 1968 models that are quickly adaptable to the cars that ran in the 1969 series. We would bet that they, or some other firm, will offer the '70 versions of the Camaro and Javelin with, hopefully, a Mustang, Dodge Challenger, and Plymouth 'Cuda as well.

The Roger Penske prepared (and Mark Donohue driven) Chevrolet Camaros will undoubtedly remain the winningest cars ever entered in the Trans-Am series with both '68 and '69 championship trophies and more wins than all of their competition combined (Penske/Donohue will race a Javelin in '70). A model of the Penske car is a model of the best of the Trans-Am sedans.

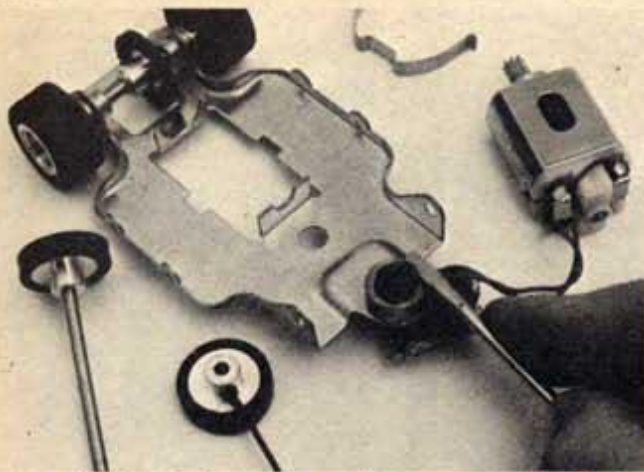
The Revell 1/32 scale '68 Camaro can be converted into a close copy of the '69 with a simple change in the hood and the addition of a rear trunk spoiler. The '69 Trans-Am Camaros ran what Chevy's sales brochures called a "forced

air hood bulge/scoop." A bit of scrap sheet plastic and some metal-base auto body filler (putty) will make the addition of the scoop easy. While you're at it with that putty, fill in the '68 hood opening line as well and scribe a new, straighter, one. Add a 1/8" high trunk spoiler from scrap plastic too. The central filler cap can be cut from a piece of round scrap, painted silver, and glued to the trunk lid.

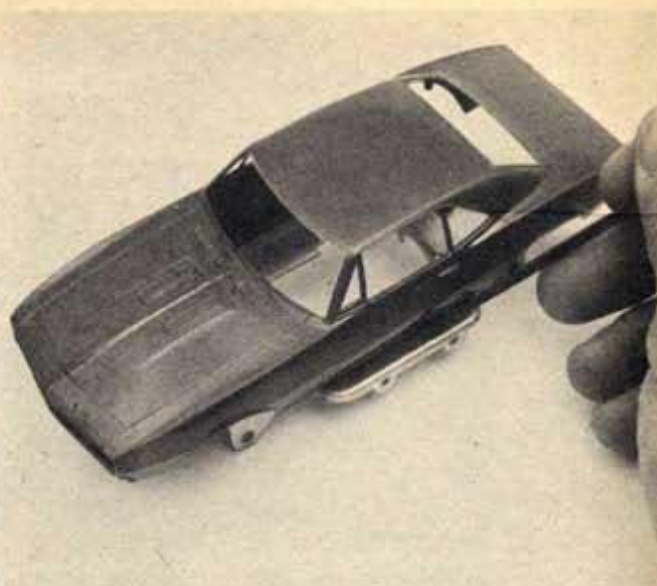
The identifying marks of the Penske cars, the bright metallic blue paint, yellow "Sunoco" and "Penske" names, and the squared-off numbers (6 or 9), are a must if you want the car to look at all like Penske's. Dynamic decals for their Sunoco Lola in 1/24 scale will supply the yellow lettering. Your local slot shop should have these or they can be obtained for 50 cents a set by mail from Dynamic Models, Dept. MCS, 13309 Saticoy St., North Hollywood, California 91605. The unusual squared-off number decals are Champion decal brand, available from any well-stocked model railroad shop. At least a dozen other Camaros competed in the Trans-Am series in other paint and racing number combinations. Roy Woods ran a bright yellow car with red number 69, another car was purple with white number 9, another silver and orange, another all-orange, yet another lime green and black, and on and on. Almost any color combination would do nicely on the Camaro. For the most realistic effect, wheel inserts from the Monogram 1/32 Cooper \$1 display kit (at your dealer or by mail from Auto World) would be close matches for the MiniLite alloy wheels used on the real cars. The wheels are painted yellow. The headlight covers on the number 6 Penske cars were glow red; those on the number 9 car glow yellow. Similarly-colored jack pads appeared under each door for you detail hunters.

By Robert Schleicher

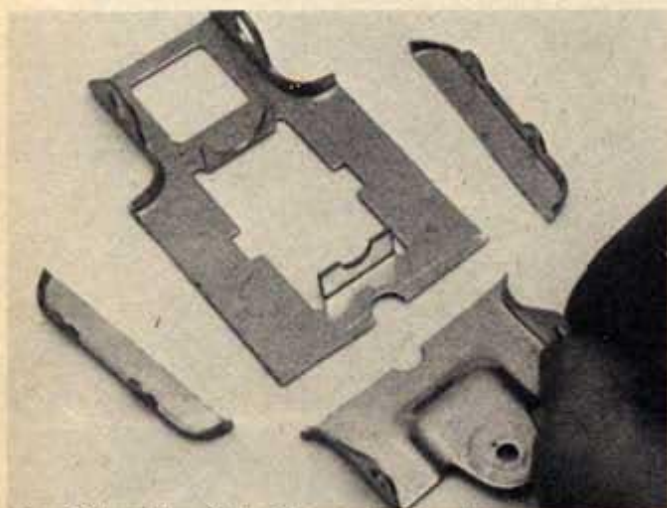
◀ Riggen's 1/32 scale ready-to-run cars (either the \$8.95 version shown or the \$6.95 car) will make quick Trans-Am mounts.



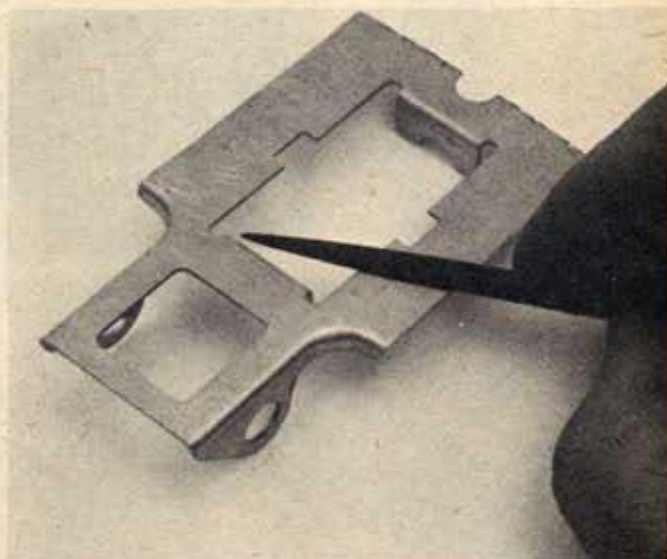
Snap off the body-mount clips, motor clip, pickup retainer, and loosen and remove the wheels and gears to bare chassis.



Center the Camaro body (from Revell's \$1 display model kit) over the Riggen chassis and mark excess width line.



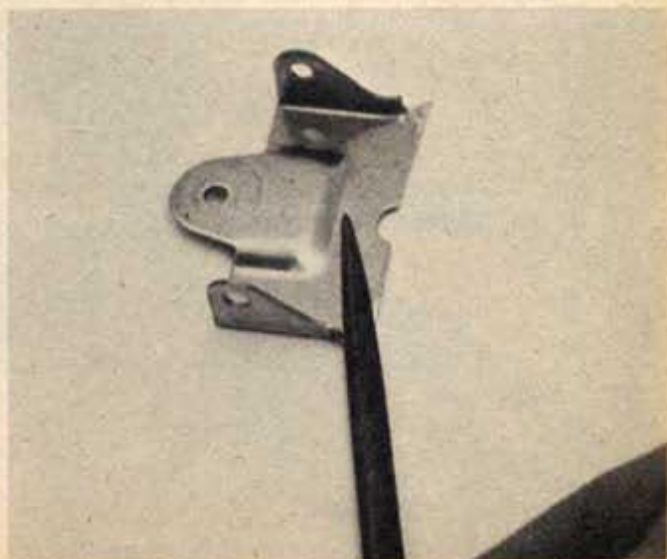
Cut off the sides of the Riggen chassis, using a razor saw, on the lines matching the width of the Camaro. With the side of the chassis cut off (each piece should be the same width) cut off the front half of the chassis as shown.



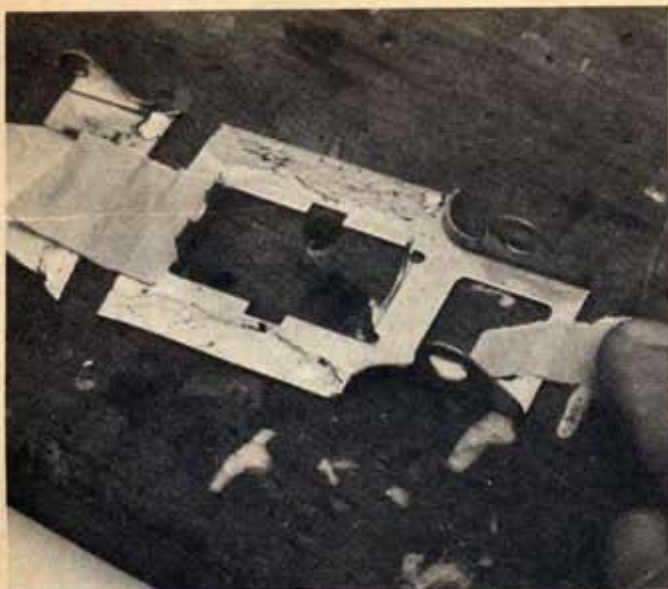
File away any burrs left from sawing and remove all oxidized metal from top outer edges of narrowed chassis.



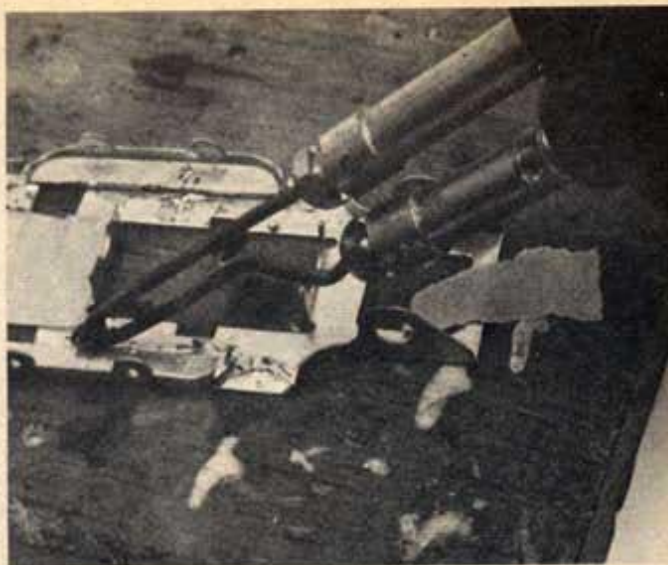
File away oxide from bottom of cut off side pieces, then cover the bottom of each with a thin layer of solder.



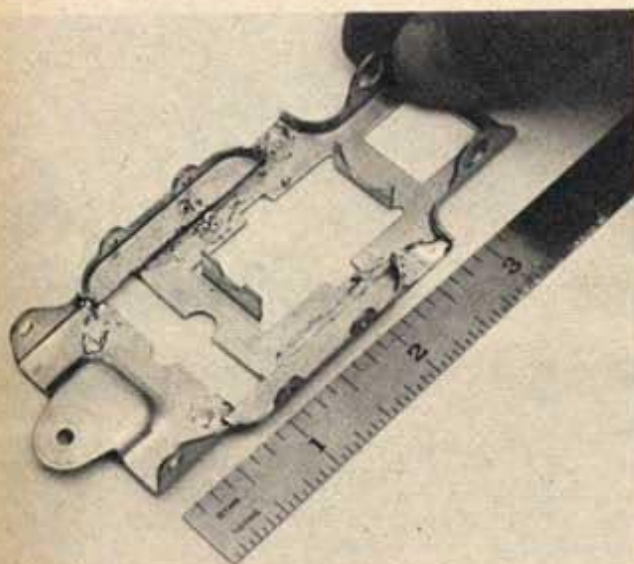
File a notch about 1/8" wide in the side flange of the front axle part of the cut-up Riggen chassis.



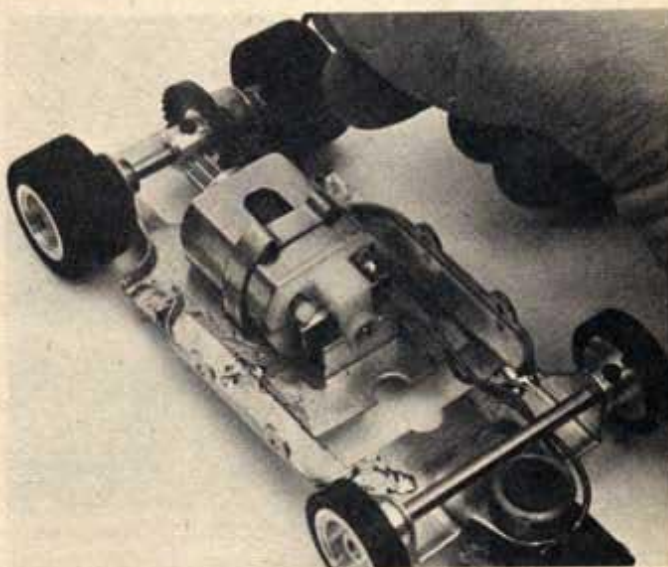
Tape the two chassis halves to a scrap piece of wood to hold them in alignment while they are soldered.



Cut off side sections are positioned even with outer edge of chassis and soldered in place to space out 3-7/16" wheelbase (center-to-center axle spacing).



Double check wheelbase to be certain it is exactly equal on each side and resolder if necessary. Clean in solvent.



Reassemble stock Rigger axles, wheels, motor, gears, pickup, and motor and adjust clearances. Test run chassis.



Revell body is painted a dark metallic blue, marked with Dynamic yellow "Penske" and "Sunoco" decals, Champion decal brand railroad number decals.



Cut rear trunk spoiler from .040"-thick sheet plastic (cardboard would do if you're willing to paint and sand a lot) and glue.



Hood is filled-in with metal-base auto body filler, then hood scoop lengthened to match '69 Trans-Am racers.



Driver is from Monogram 1/32 scale Cooper display kit (which will also furnish the MiniLite-style wheels inserts to match those used on the real Penske Camaro).



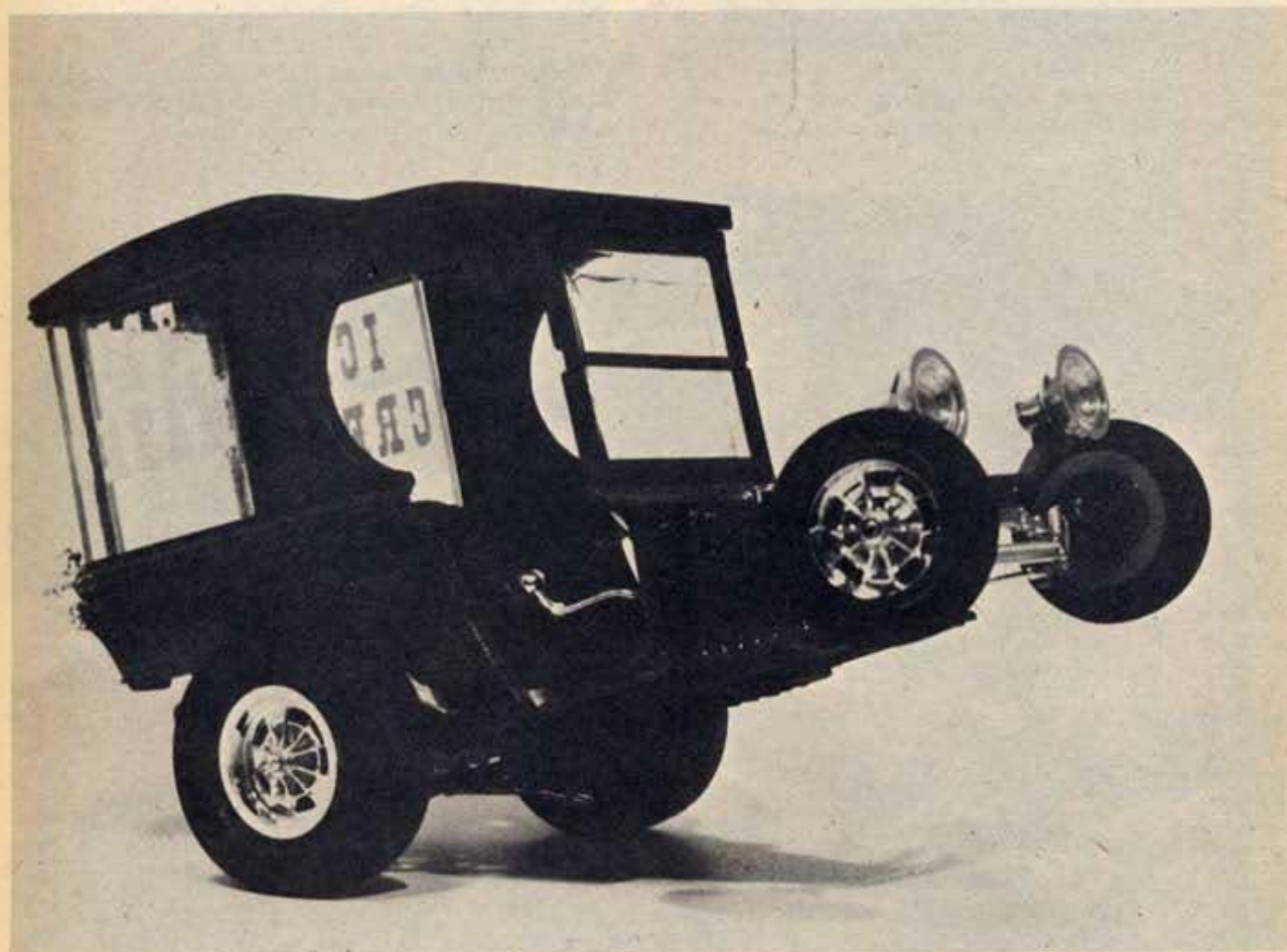
Clear plastic side panels (cut from sides of stock Rigger body) can be glued inside Camaro body with contact cement and the stock body-mounting clips used to mount.

A perfect match for the Penske Camaro Trans-Am champion cars. Wheels (or Monogram Cooper inserts) should be bright yellow to match headlights and decals.



the Ice Cream Truck

By Brick Price



Converting Revell's "Der Guber Wagen" into a 427 Ford-powered exhibition car

Two of the latest trends in custom vehicles are trucks and dune buggies. Far be it from the cool clan of designers at Revell to ignore the obvious possibility of combining the two into a group of far-out customs including the "Moon-mixer," "Meter Cheater," and "Der Guber Wagen." Revell's Der Guber Wagen has a pan chassis, modified chrome Corvair engine and a neat-looking peanut wagon body similar to those seen at carnivals.

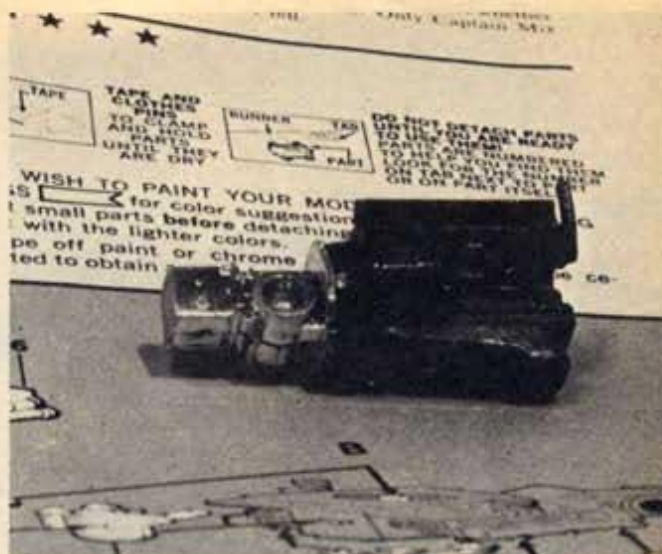
The lightweight body/chassis combo and rear mounted

Corvair engine would result in some mild wheelies, but the thought of hiding a blown 427 in that body was just too much to resist. Moving the rear wheels forward does wild things for wheelies. In fact, the weight distribution on the model is such that you can balance the Ice Cream Truck on its rear wheels. This type of set-up isn't unusual since many exhibition cars like the "Hemi Under Glass" and "Back-up Pick-up" have been doing it for years.

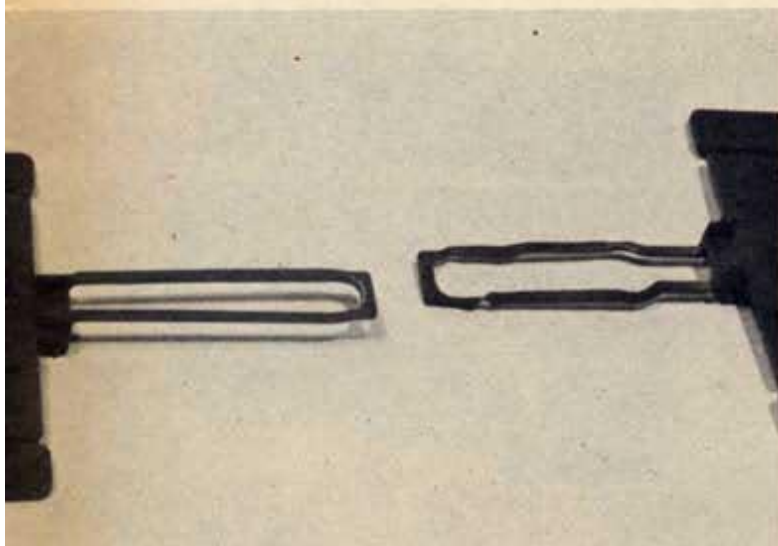
The best part about Revell's Der Guber Wagen and the modified Ice Cream Truck is that they could be driven on the street, even though it'd be like trying to ride a unicycle with a flat tire. Besides, the "Feds" don't care much for "goose-stepping" hot rods on the Tarmac!



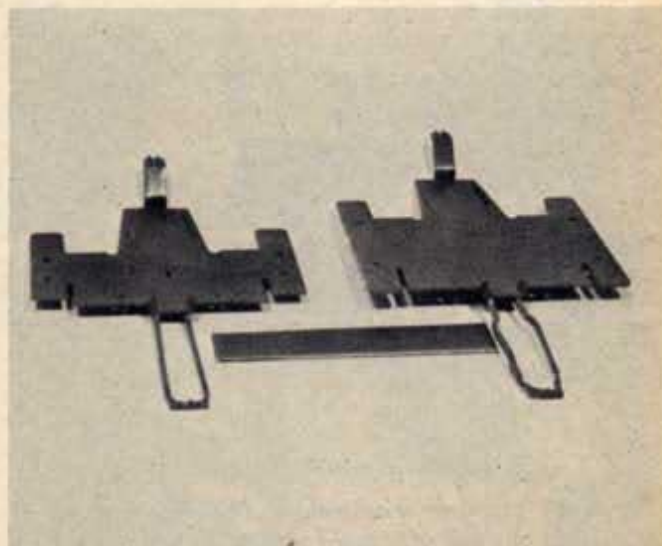
Mounting the 427 SOHC engine from the Revell '51 Henry J Drag Coupe Kit to the Corvair trans axle is easier than it sounds. Cut the entire transmission and clutch housing from the Ford engine and the front half of the Corvair Housing from the transaxle.



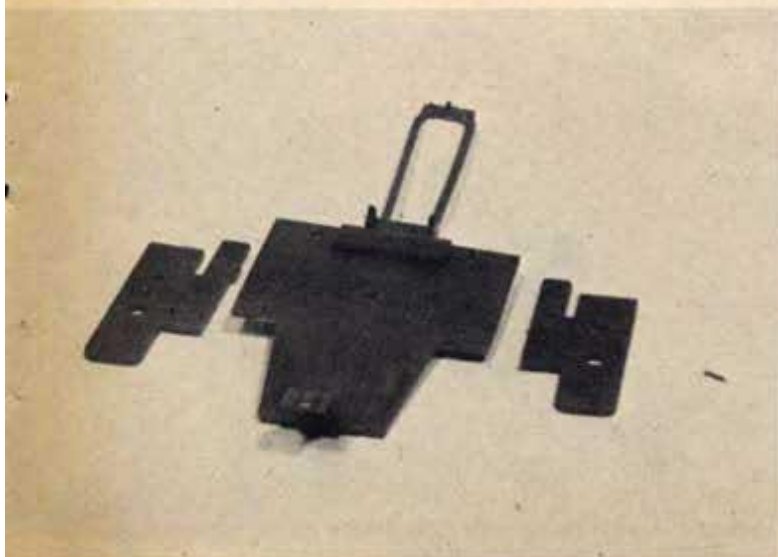
Glue the transaxle to the 427 engine. This combination will work since Trevor Engineering has a similar set-up for real cars.



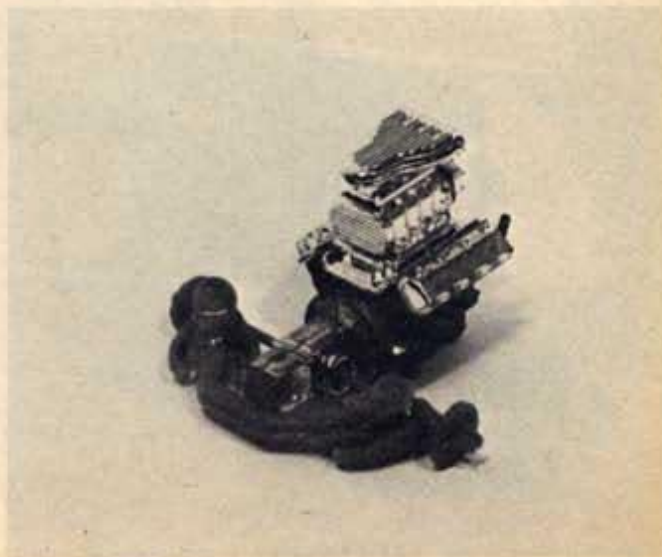
Carefully heat the frame area where the engine mounts and bend it to barely clear the Ford oil pan.



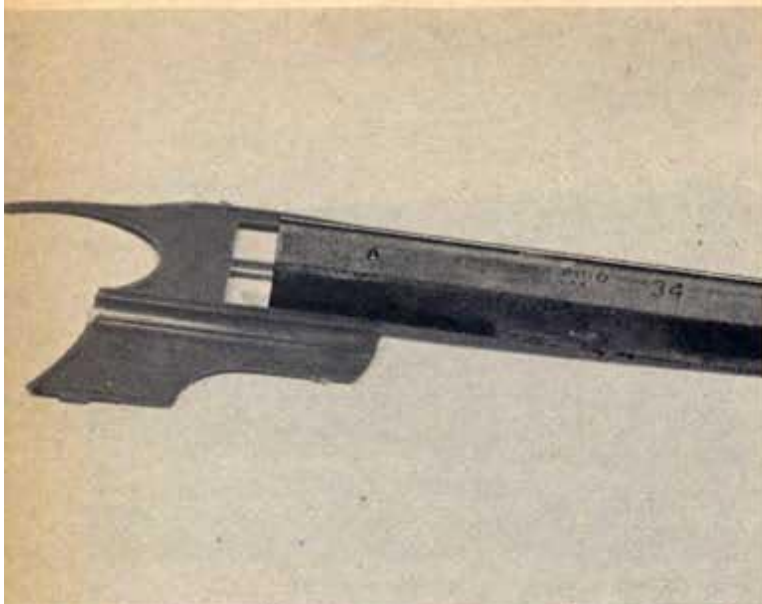
Remove $\frac{1}{2}$ " from Der Guber Wagen's pan chassis and glue the frame back together.



Cut the fender mounting tabs off of the chassis since our new truck will be light enough not to legally need them.



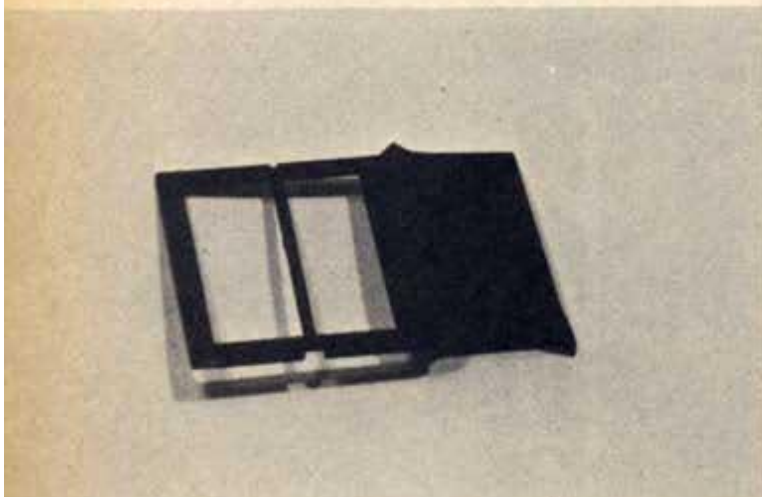
Finish the 427 engine assembly per kit instructions and glue it to the rear end as shown.



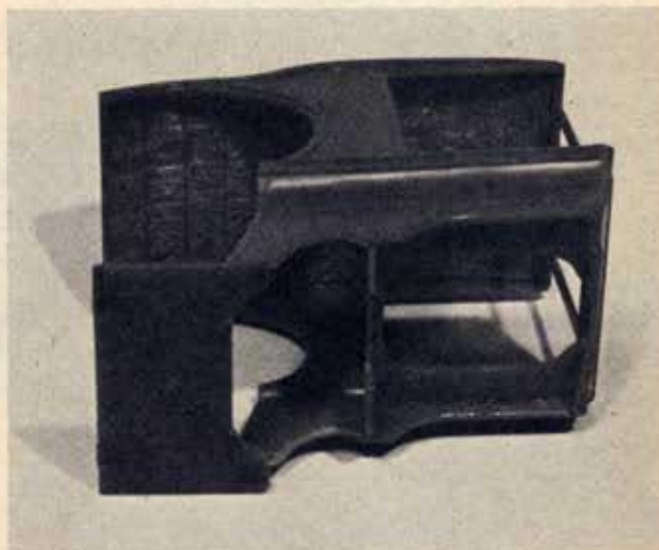
Cut all of the window dividers out of the side pieces.



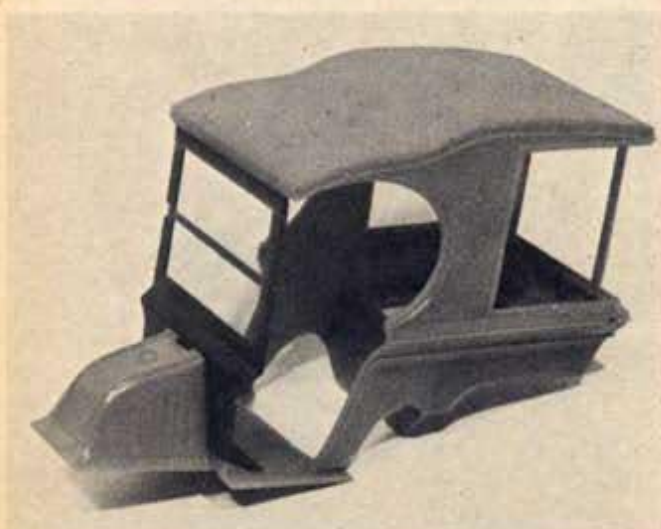
Glue the body panels together and secure them with a rubber band until the glue has set.



The stock monacle windshield is fine, but I prefer the protection of a full windshield such as the one in the Revell Moon Mixer Kit. Cut 1/8" from the windshield frame and window so that it will fit under Der Guber Wagen's roof.

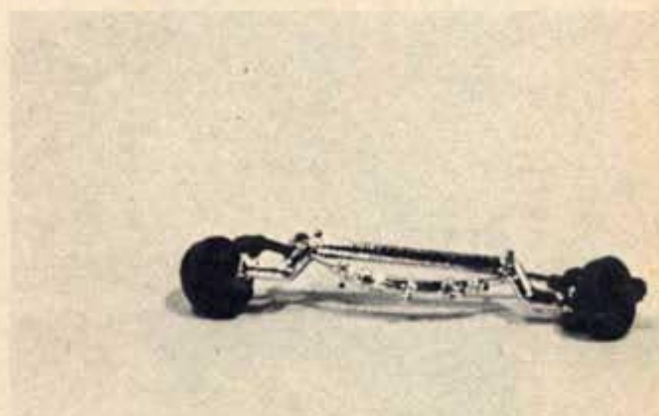


Cut a hole in the floor board large enough to clear the blower scoop and case.

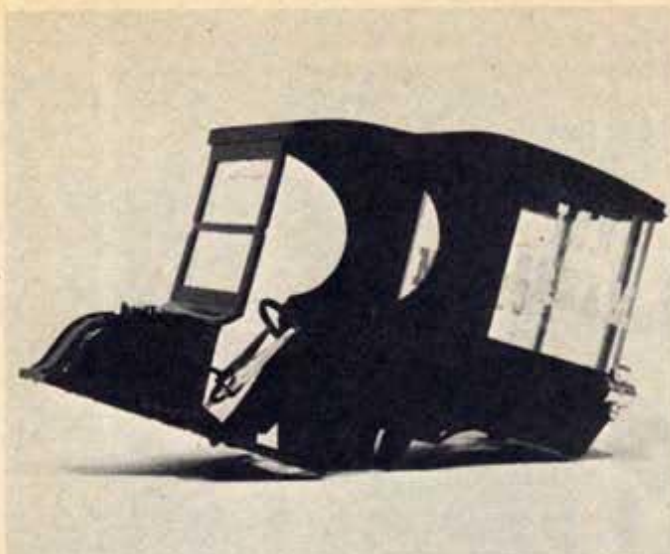


Painting the body will be easier if you ignore the kit instructions and glue all of the body pieces together before gluing them to the frame.

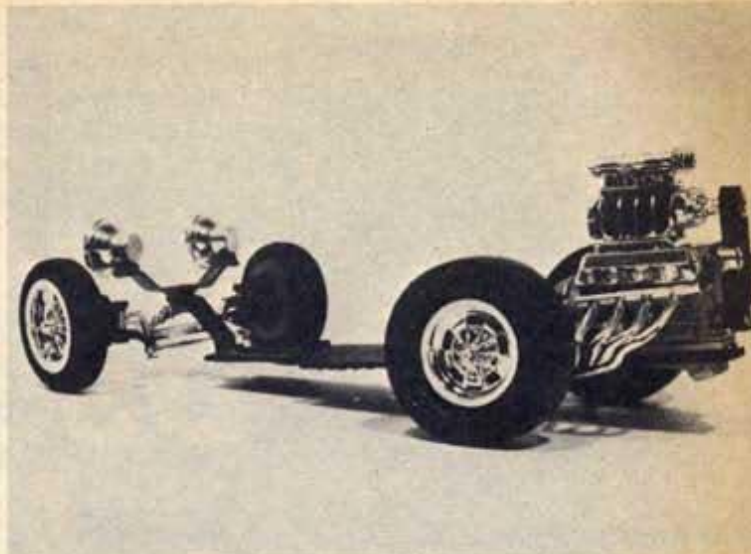
22/Model Car Science



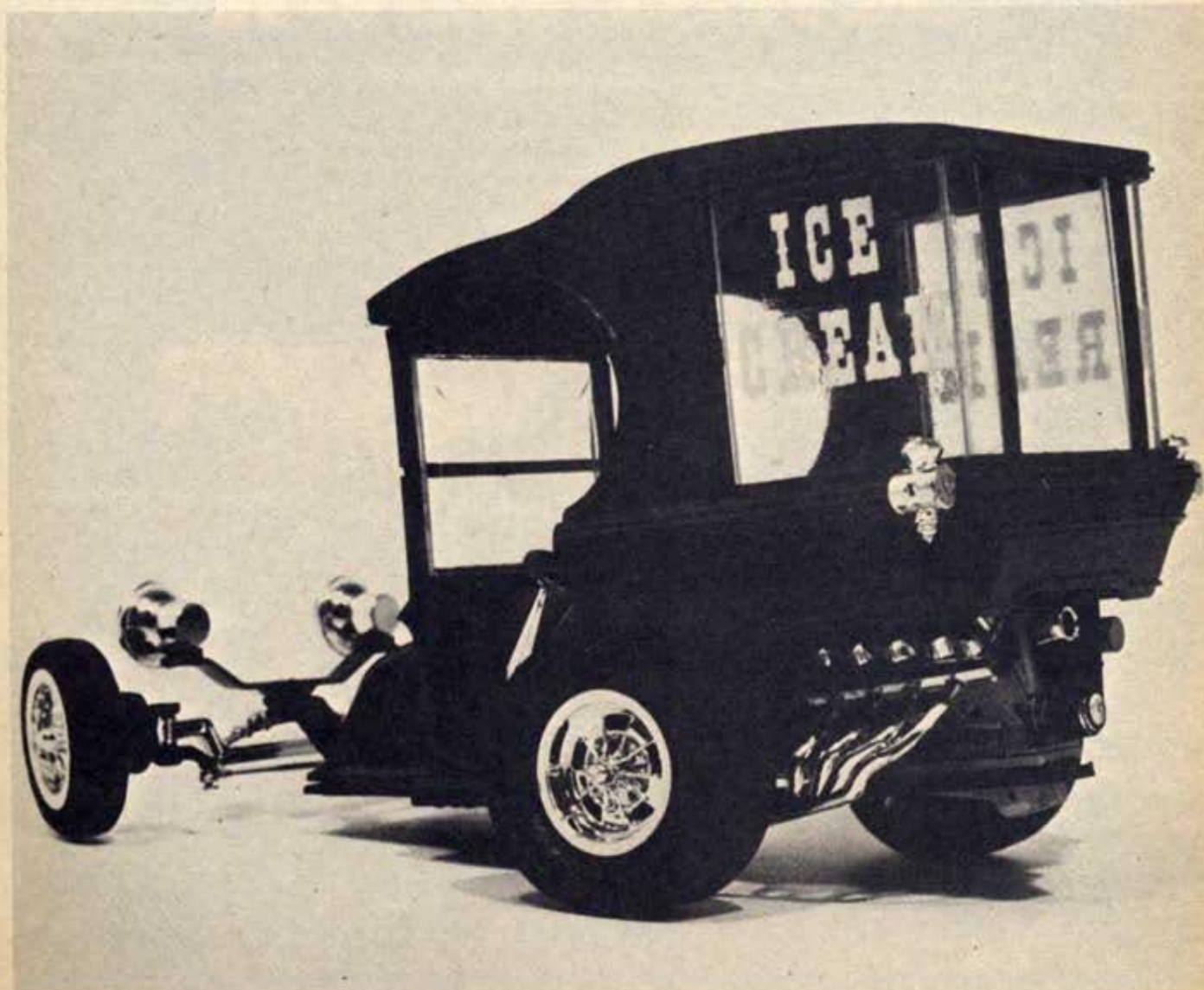
One of the great features of most Revell cars is the working steering. It's easier to keep the tie rod in place by touching the king pins with a hot knife instead of gluing the retainers on.



The rear windows were cut from a clear plastic box while the wording "ICE CREAM" is Letra-Set letters rubbed onto a blank decal sheet and applied like a decal.



The nice looking mags were lifted from Revell's 1931 Sedan Delivery Ford Kit. The exhaust headers were swapped side-for-side to exit towards the front of the car.



From a peanut wagon, a wild Revell HOT Rod, to a COOL custom Ice Cream Truck is a mind blowing experience, and fairly simple to do by swapping kit parts. Save those extra parts to build at least one more wild creation.

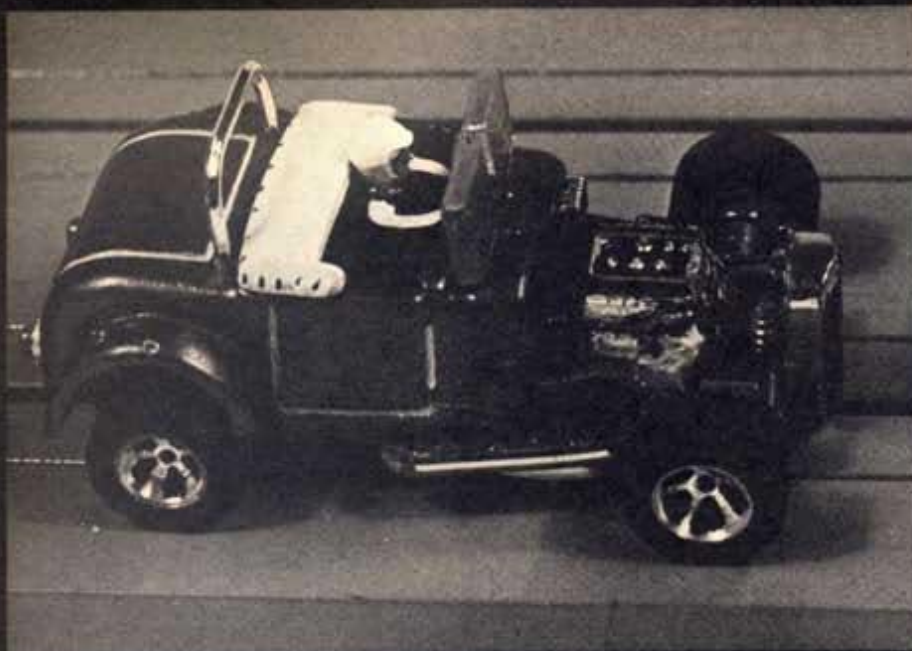
Part Two: Last month we showed you the top three winners in the Can-Am, Trans-Am, Dune Buggy, Modified NASCAR, and USAC Formula classes, plus the Best Engineered Chassis winner. This month we've got the rest of the winners for you, drawn from the pages of

...UNCLE OSCAR'S HO SCRAPBOOK

Here, again, is the list of winners in the various classes of Auto World's gigantic contest for H.O. cars, which just drew to a close in Scranton, Pa. Next month we'll be bringing you a host of other entries from contest, not winners, but interesting and exciting cars, to be sure. Watch for it!

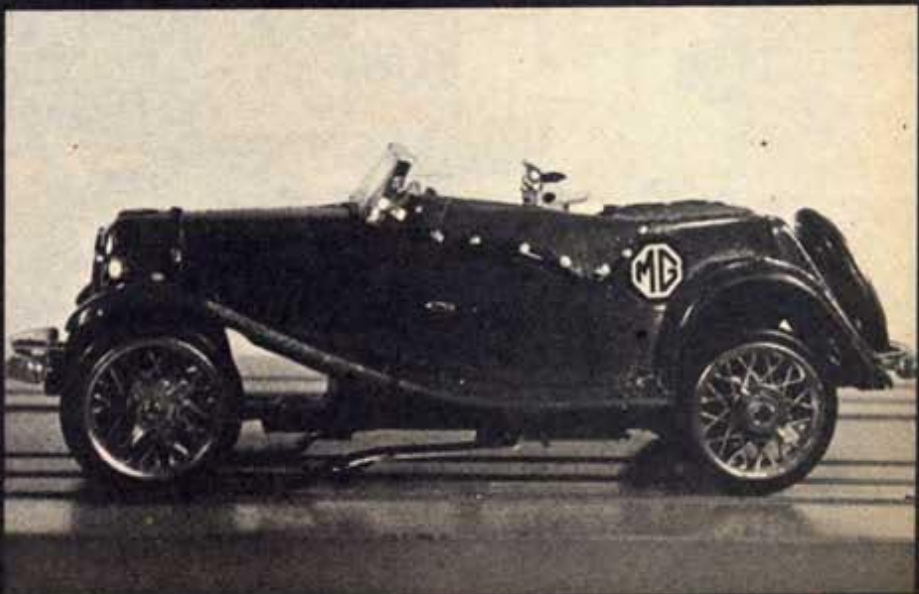
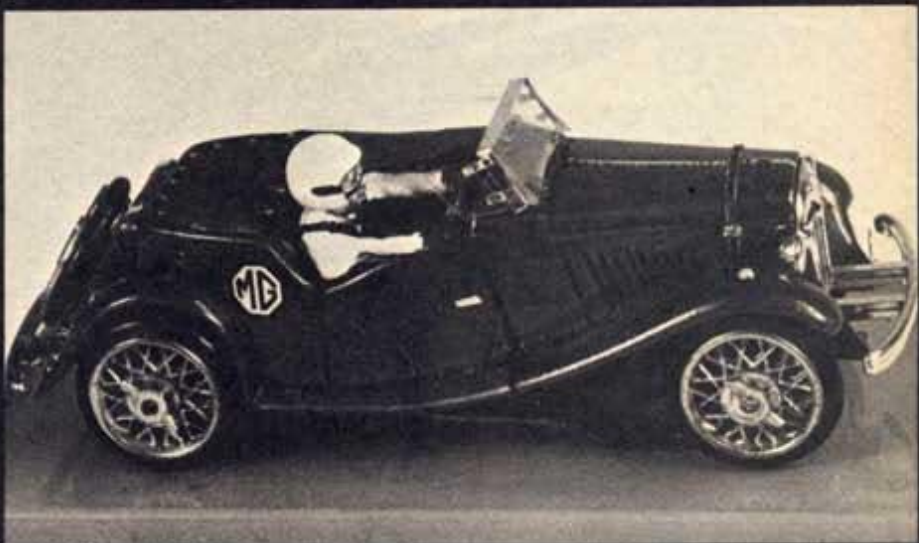


Best Psychedelic Paint ↗

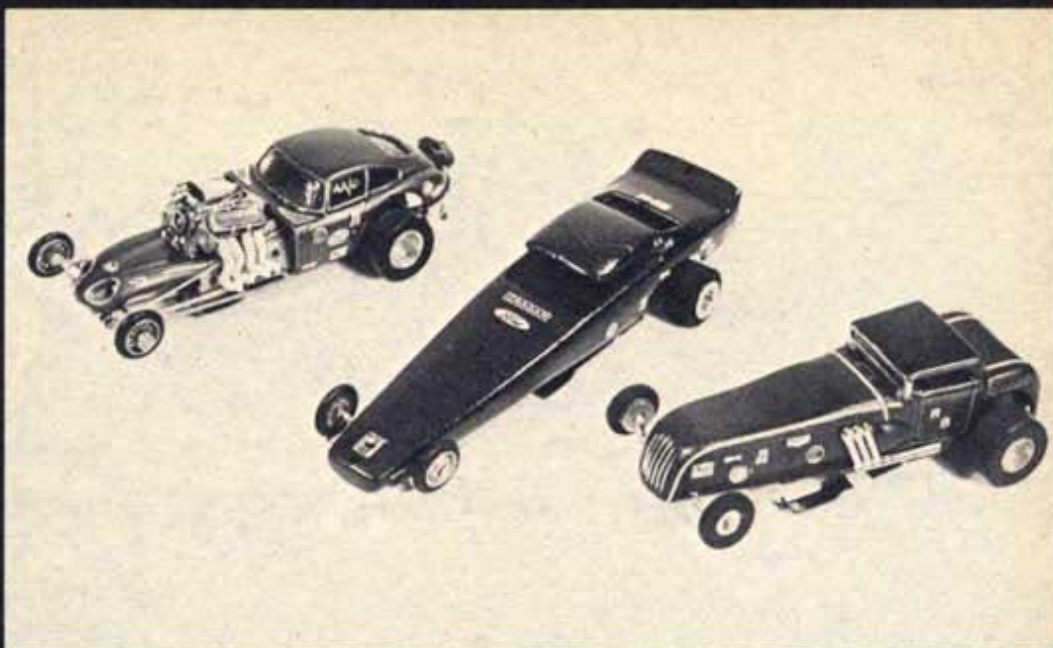


Best
Roadster

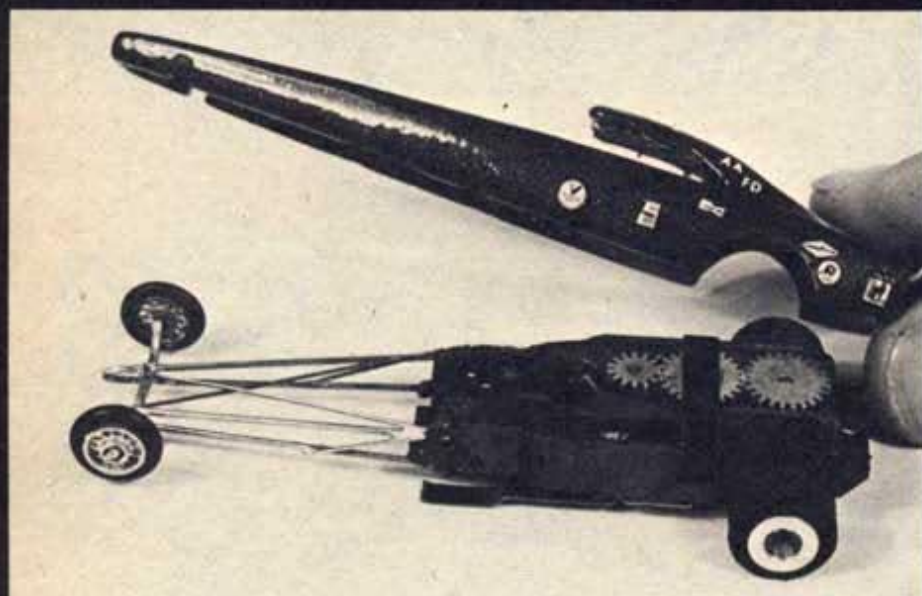
Best
Classic
Car →



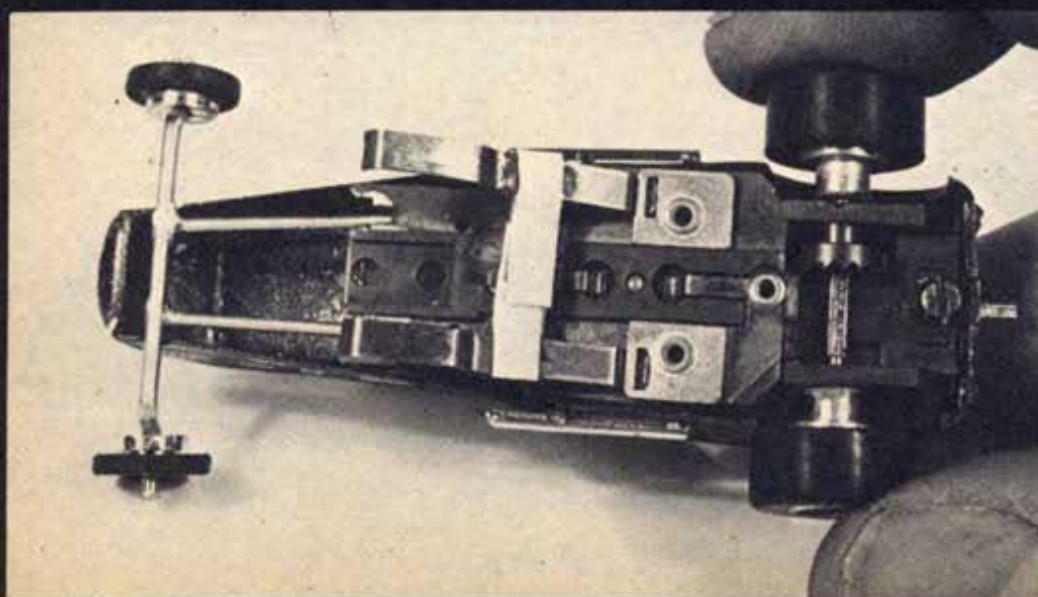
Winning
NHRA
Dragsters-
Perkins,
Martinez
& Balalurin



2nd Place
Martinez



3rd Place
Balalurin



CONTEST WINNERS

1970 AUTO WORLD H.O. INTERNATIONAL CHAMPION

Kenneth F. Perkins
Marshland Rd. RD No. 1
Apalachin, New York 13732

BEST ROADSTER

Ron Esterline
3120 Christopher Lane
Indianapolis, Indiana 46224

MOST SOPHISTICATED CHASSIS DESIGN

Kenneth F. Perkins
Marshland Rd. RD No. 1
Apalachin, New York 13732

BEST ORIGINAL BODY DESIGN

Eddy Argenbright
942 Kellogg Avenue N.W.
Roanoke, Virginia 24012

BEST ENGINEERED CHASSIS DESIGN

Carl Dreher
6957 Ash Avenue
Gary, Indiana 46403

BEST CLASSIC CAR

Kenneth F. Perkins
Marshland Rd. RD No. 1
Apalachin, New York 13732

BEST PSYCHEDELIC PAINT DESIGN

Glen Yancoskie
109 Sarah Street
McKees Rocks, Penna. 15136

BEST CONSTRUCTED BODY

J. Michael Sells
13 Frost Ave. Lot No. 2
St. Paul, Minn. 55109

BEST TRUCK

Kenneth F. Perkins
Marshland Rd. RD No. 1
Apalachin, New York 13732

BEST JET CAR

Craig & David Holland (twins)
c/o TSGT Carl Holland
SHAPE, SHOC MAINT
APO New York, New York 09055

MODIFIED NASCAR (DIVN. 1-A)

FIRST

John Jolley
1133 Apt. B, S. Seminole
Chattanooga, Tenn. 37412

SECOND

Donald W. Lazevnick
909 Albert Rd.
Peekskill, N.Y. 10566

THIRD

Frank Przemielewski
49 Codington Ave.
N. Plainfield, N.J. 07060

NASCAR STOCKERS (DIVN. 1-B)

FIRST

Brock Lohose
708 E. Aimsworth
Pasco, Wash. 99301

SECOND

Stephen Foss
72 Elm Rd.
Princeton, N.J. 08540

THIRD

Billy C. Martin
206 Chestnut
New London, Iowa 52645

CAN-AM (DIVN. 2)

FIRST

J. Michael Sells
1310 Frost Ave. Lot No. 2
St. Paul, Minn. 55109

SECOND

Robert E. Barnett
607 Villa Dr.
Norman, Okla. 73069

THIRD

Dan McArthur
2020 Cliffview Rd.
Cleveland, Ohio 44121

TRANS-AM (DIVN. 3)

FIRST

Ron Esterline
3120 Christopher Ln.
Indianapolis, Ind. 46224

SECOND

Gary Grassman
1526 Carroli Dr.
Garland, Texas 75040

THIRD

David Vanderbliden
527 Westview St.
Lenoir, N.C. 28645

NHRA FUNNY CARS (DIVN. 4)

FIRST

Wendell Suyama
17001 Brighton Way
Gardena, Calif. 90247

SECOND

T. Max Copenheaver
1351 Beeler Ave.
York, Penna. 17404

THIRD

Randy Seeley
Welsh Rd., Box 131
Ambler, Penna. 19002

NHRA DRAGSTERS (DIVN. 5)

FIRST

Kenneth F. Perkins
Marshland Rd. RD No. 1
Apalachin, N.Y. 13732

SECOND

Luis P. Martinez
P.O. Box 159
Bronx, N.Y. 10458

THIRD

Russell Baldwin
1710 Nottingham Ct.
Wichita, Kan. 67204

USAC/FORMULA (DIVN. 6)

FIRST

Orville Banasik
2406 10th North
Fargo, N.D. 58102

SECOND

Russell Smith III
748 Ott Street
Harrisonburg, Va. 22801

THIRD

Tom Hauschild
719 Lincoln
Owatonna, Minn. 55060

INTERNATIONAL GT (DIVN. 7)

FIRST

Angelo Pupillo
335 Belmont NW
Warren, Ohio 44483

SECOND

Rich Kerr
1107 Allston Rd.
Havertown, Penna. 19083

Continued
July 1970/27

Continued

THIRD

Dan McArthur
2020 Cliffview Rd.
Cleveland, Ohio 44121

DUNE BUGGIES (DIVN. 8)**FIRST**

Glenn Yancoskie
109 Saran Street
McKees Rocks, Pa. 15130

SECOND

Roy W. Headrick
Box 266
Mullinville, Kan. 67109

THIRD

Barry Brack
9 Dunster Street
Carteret, N.J. 07003

**NHRA Funny Cars****CUSTOM CARS (DIVN. 9)****FIRST**

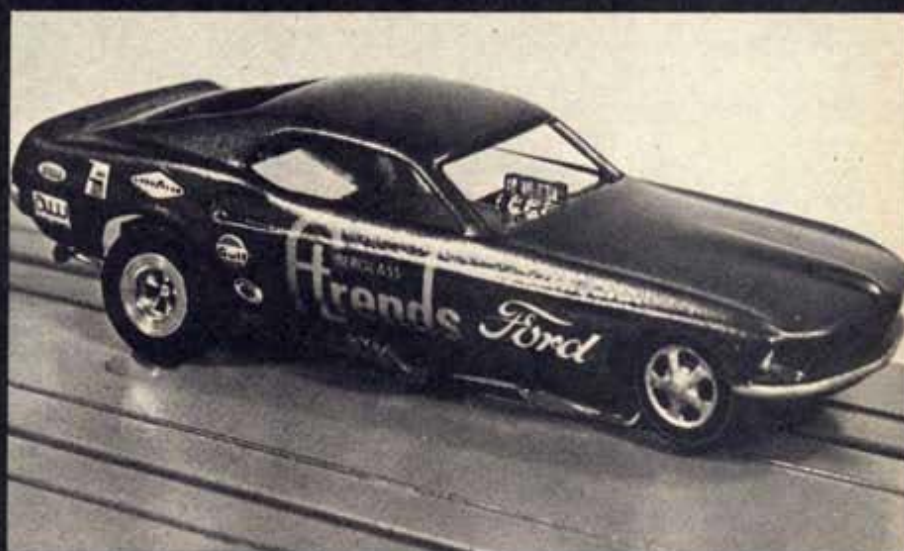
Eddy Argenbright
942 Kellogg Ave., N.W.
Roanoke, Va. 24012

SECOND

Howard Kilgore
7001 Hadley
Overland Pk., Kan. 66204

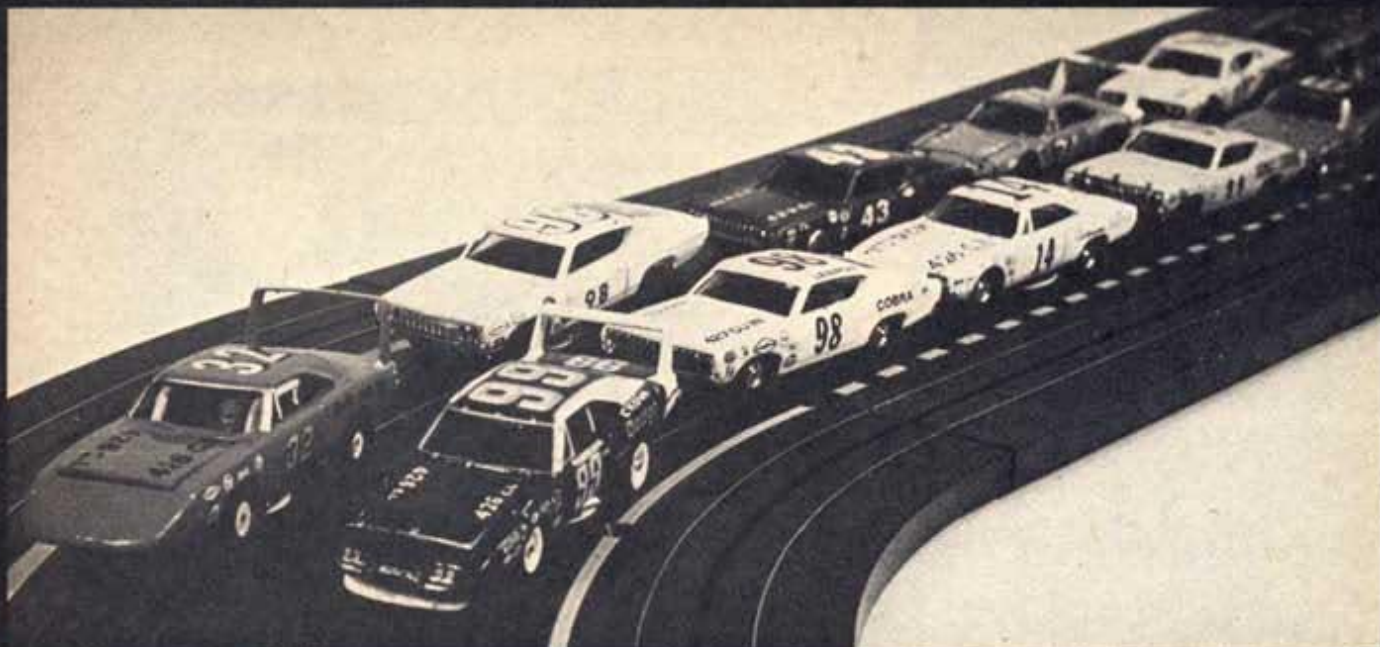
THIRD

Brent Connick
24 Corte Encina
Moraga, Calif. 94556



1st Place -
Suyama





Some of the
NASCAR
Stockers

1st Place
Stocker





2nd Place
NASCAR
Stackers
← Foss

3rd Place
Martin



Winners
NASCAR
Stackers
Lohse,
Foss
↓
Martin





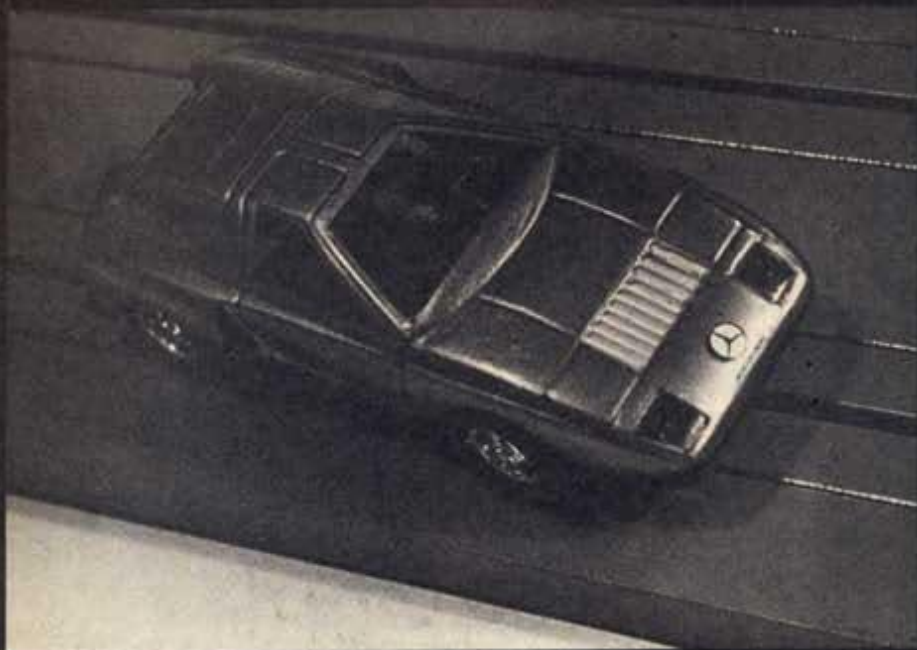
The International G.T. Fidal →



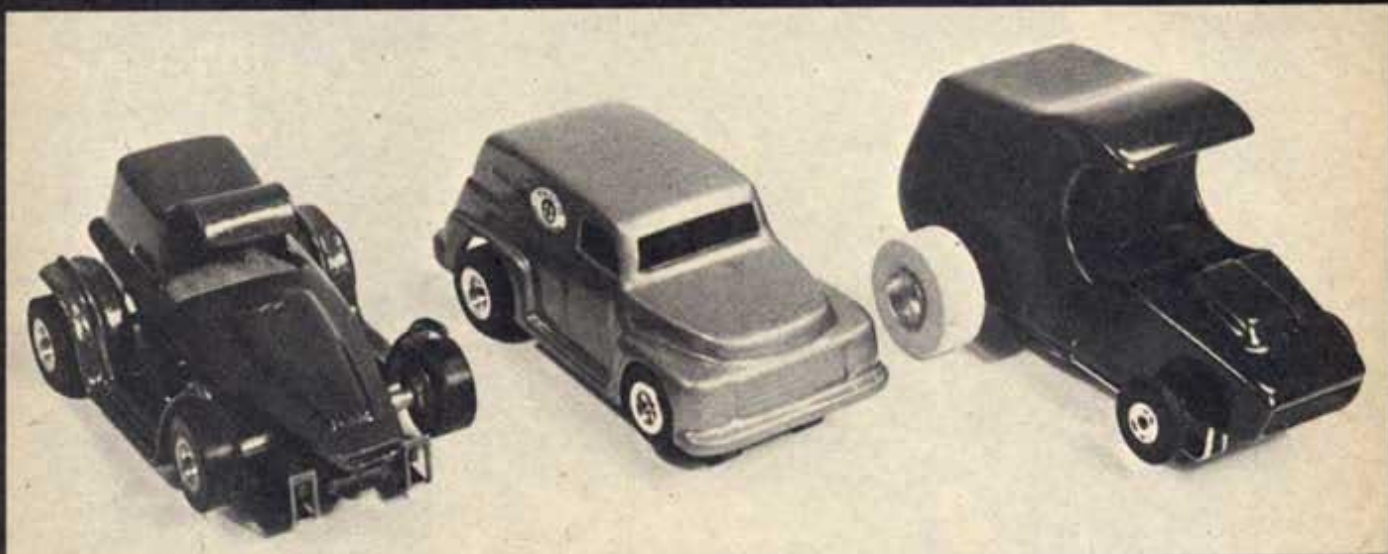
2nd Place international GT

*1st Place
G.T. →*

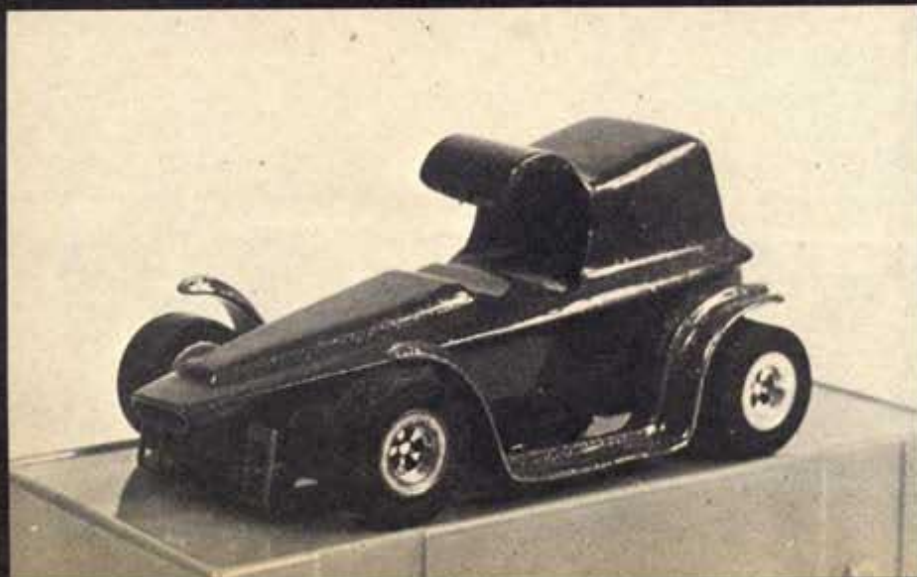




3rd Place
McArthur's
Car
←



Winners
Custom Cars



1ST Place
Customs
←



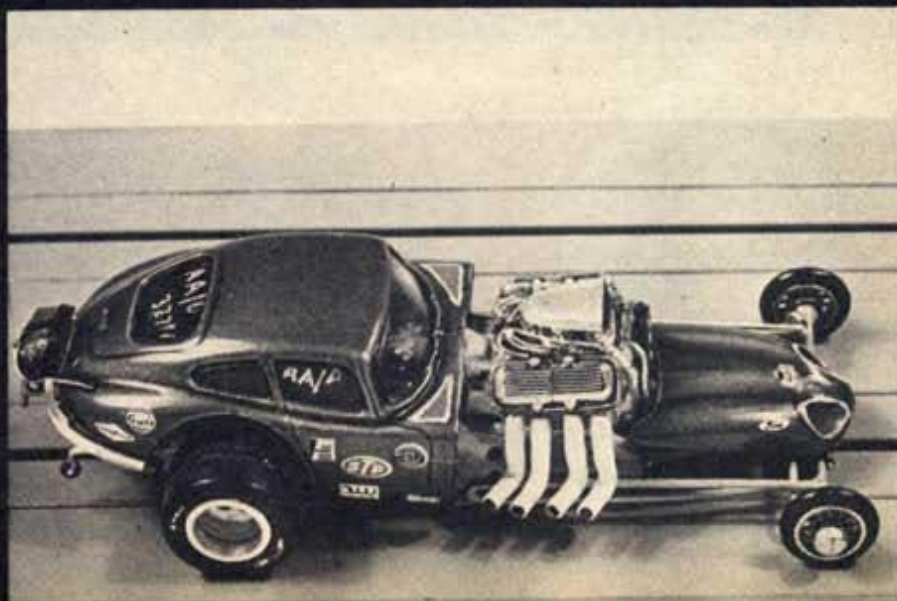
2nd Place
Custom Cars -
Kilgore
←



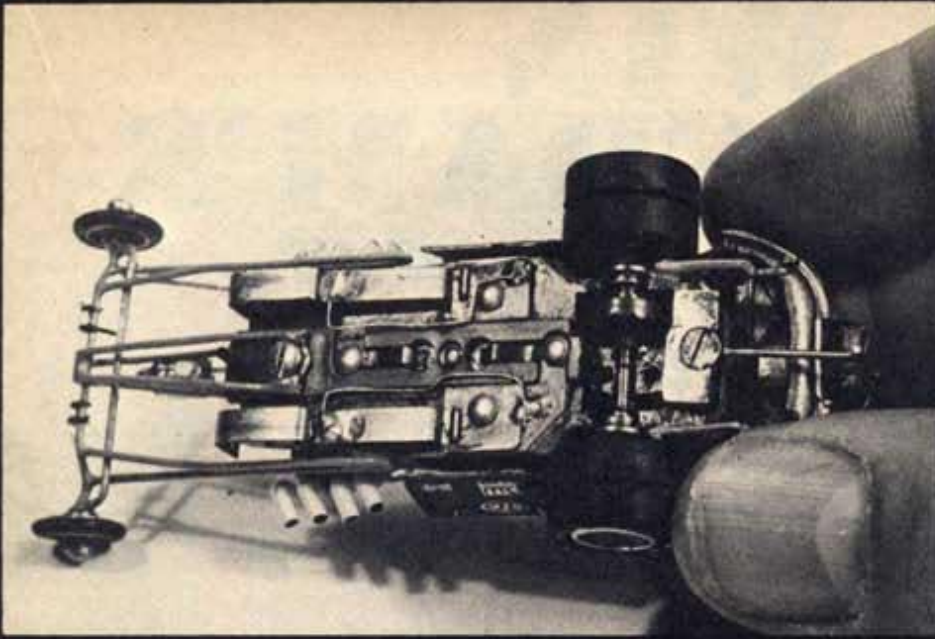
3rd Place
winner
Custom
cars
←

THE 1970
AUTO WORLD
HO CHAMP

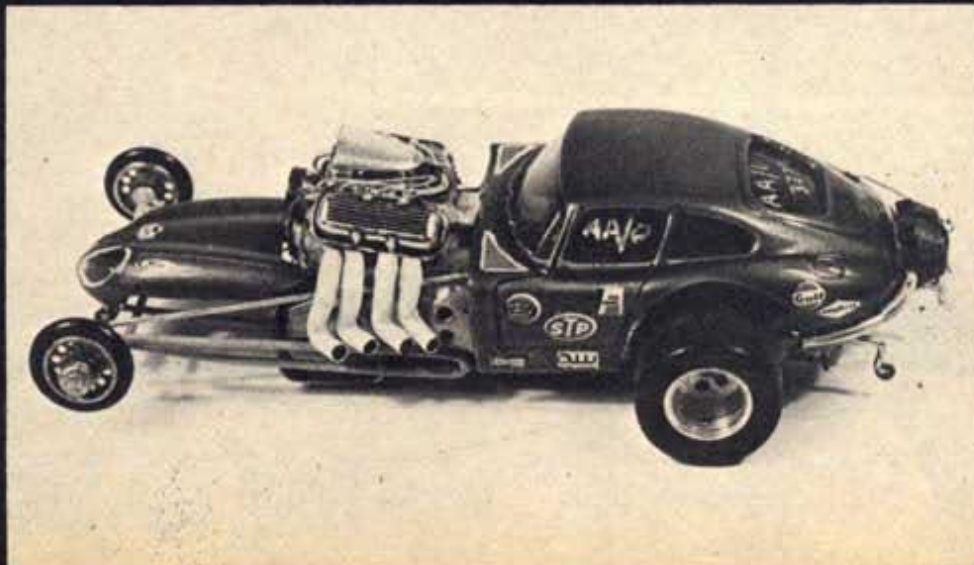
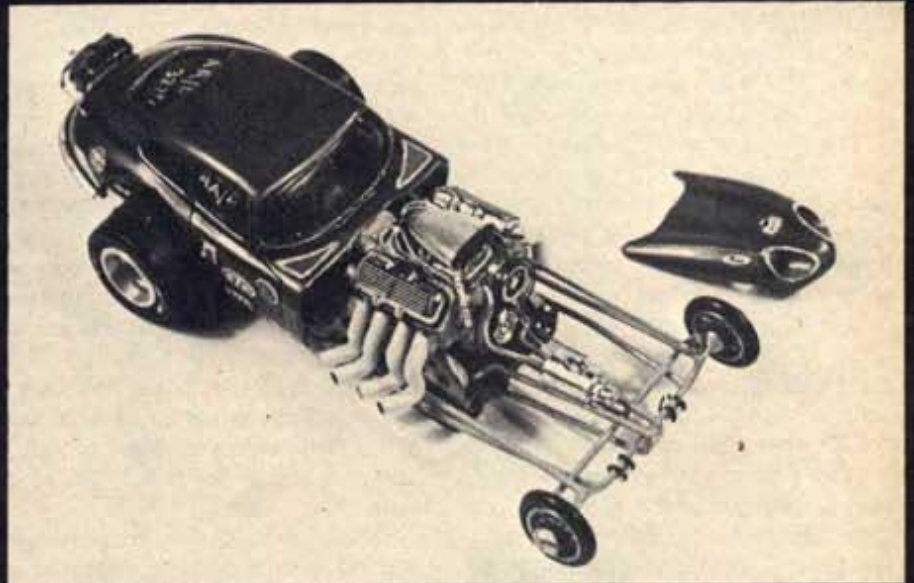
Kenneth
Perkins
"Jag"
→



1970 Champ-
continued



more of
The
Champ



WIN MONOGRAM'S FULL-SIZE "PREDICTA" SHOW CAR!

Here's a contest you won't want to miss!

Here's a contest you won't want to miss! Monogram Models and *Model Car Science* have teamed up to produce what surely must be one of the wildest contests ever conceived for you model builders.

The grand prize? Monograms' fantastic "Predicta!" That's right, you can win the Predicta, Monogram's famous show car, designed by Darryl Starbird. Check these pages for photos and a history of this fabulous car.

You'll have to work for the grand prize, of course! It won't cost you much money, just the price of a kit or two, but you'll have to work your brain, so get tuned up!

Here's what you have to do. First, read every word in this section at least three times so you understand, fully, the rules. Then, hustle out and pick up

a Monogram kit, bring it home and open it up. Next, sit down and stare at it for several hours.

Getting any ideas? Thought you would! Sure, that car would look great if it was chopped a little here, stretched a little there and . . . hmmm.

That's the idea! And that's also the idea behind this contest. We want you to take a Monogram kit and change it into a "dream dragster" of your own design. If your entry wins the big one, you'll get the fantastic Predicta for your very own.

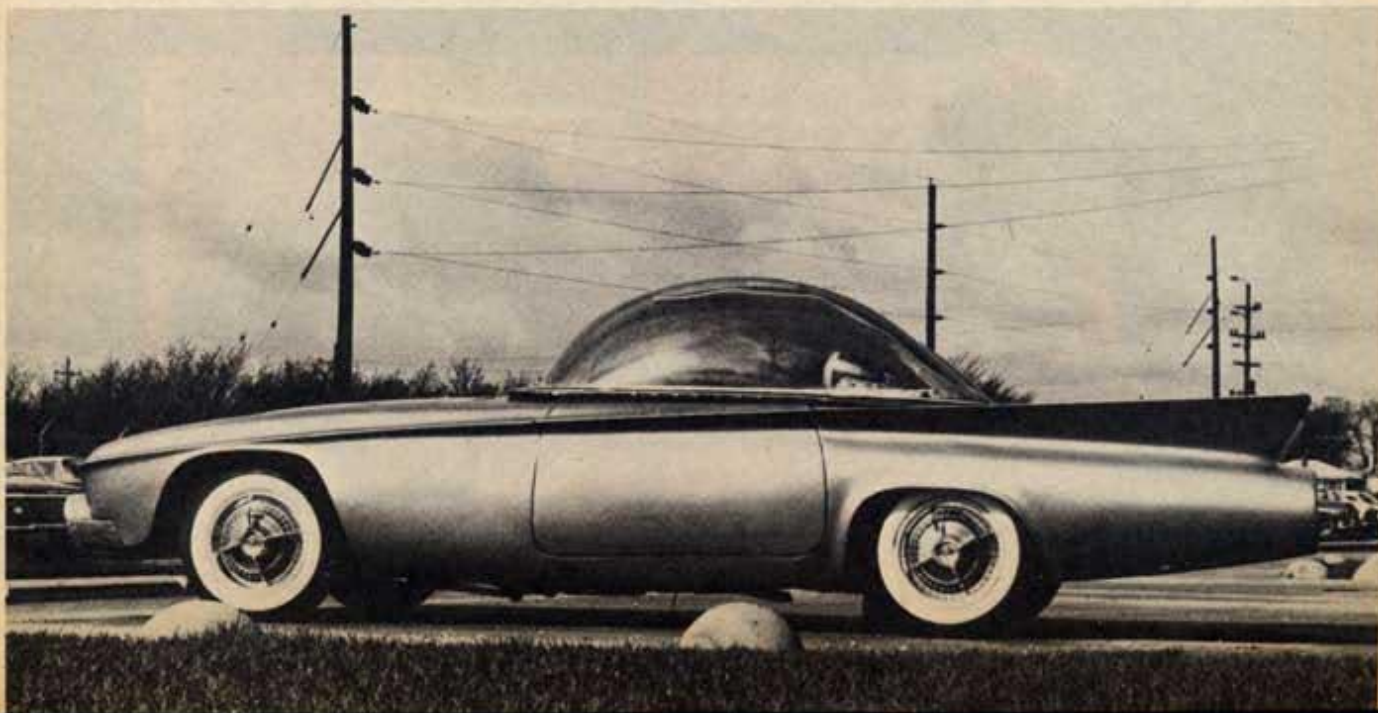
There are other prizes, too, as you can see. Great prizes like dough, cash, bread, whatever you want to call it, and free subscriptions to MCS, so get with it!

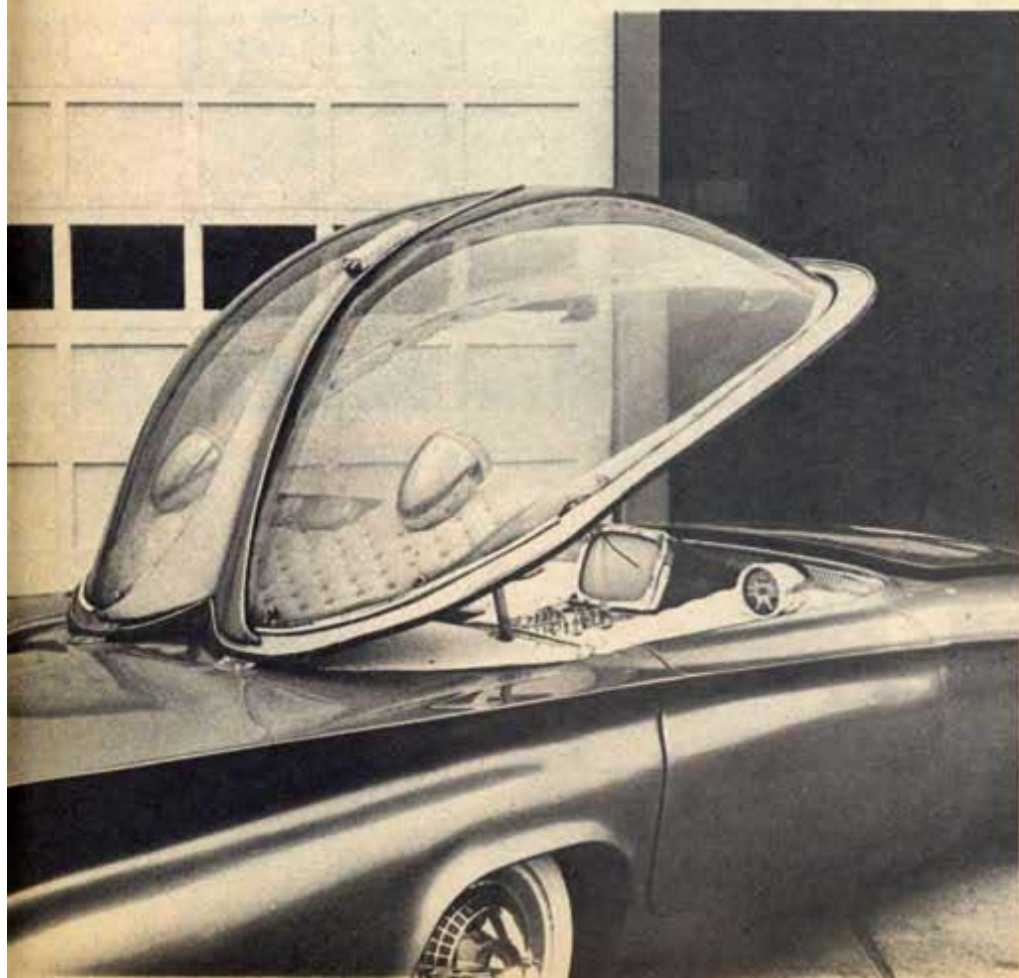
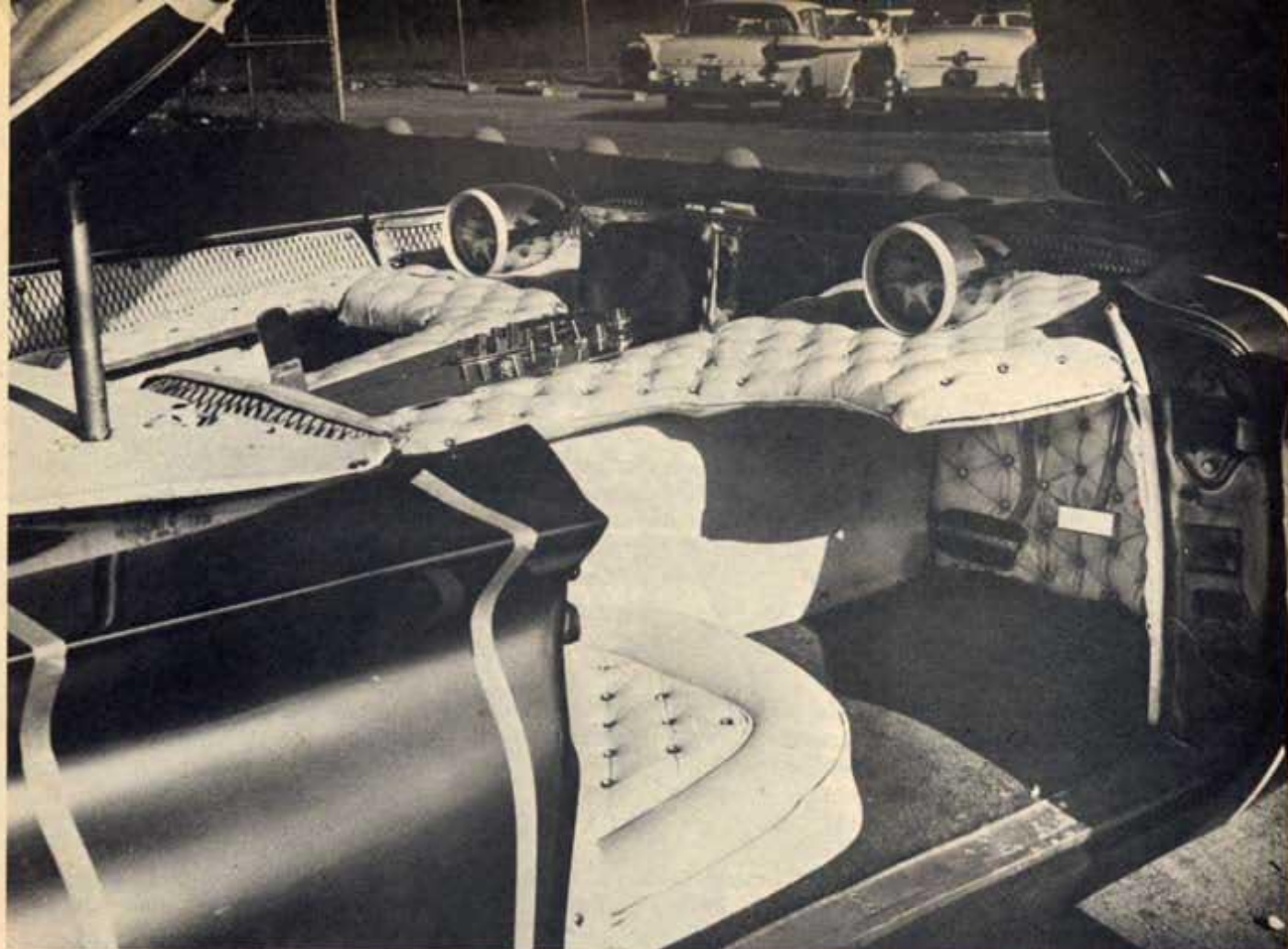
While we've shown you what you can do with Monogram's dragster kit

(see Brick Price's great article on the "dream dragster" in the story following this one), you don't have to build a "rail," necessarily. You can make it a coupe, truck, pick-up, or what-have-you (see rule number two). That opens the door to just about any Monogram model car kit. With a liberal dose of imagination, you can transform any of them into a winning entry.

Read the rules and GO! The deadline for your entry is July 22, 1970 (see the official entry blank). Don't send us your actual finished model car. Send black and white photos and a description (see rule number three).

The contest will be judged by Raymond Hoy, Editor, and Brick Price, Associate Editor, *Model Car Science*, and members from the Monogram staff. Good luck!





The Monogram "Predicta" is one of the original bubble topped, experimental type, prize-winning show cars. It was designed and built by Darryl Starbird who also made many other outstanding show cars. It has won numerous car show awards from coast to coast, including the famous Oakland Roadster Show.

The Predicta was the first in the custom field to have such features as "unistick" steering, an electrically operated full lucite bubble top and individual cockpits with chest high safety padded dash. The Predicta features an all metal body which was basically an early type Thunderbird but has been so extensively restyled that only the hood resembles the original car.

The work took over 2000 man hours to complete. Power is supplied by a reworked 392 cubic inch, fuel-injected '57 Chrysler Hemi engine.

The Predicta has traveled over 50,000 miles while being shown. The car was actually road driven over 10,000 miles and was proven to be more than a "show" car. The Predicta has been featured in at least nine national magazines.

CONTINUED

July 1970/37

MONOGRAM — MODEL CAR SCIENCE DREAM DRAGSTER CONTEST

1ST PLACE:

Monogram's full-size "dream car" — the fabulous Predicta!

2ND PLACE:

\$75 cash and one-year subscription to *Model Car Science* magazine.

3RD PLACE:

\$50 cash and one-year subscription to *Model Car Science* magazine.

4TH–25TH PLACE:

One-year subscription to *Model Car Science* magazine.

BEST PHOTO AWARD

\$25 cash and a one-year subscription to *Model Car Science* magazine. While you may not have the winning model, a special award of \$25 will go to the entrant who submits the best photo in the contest.

BEST OPERATING FEATURE AWARD:

\$25 cash and a one-year subscription to *Model Car Science* magazine. A special award of \$25 will go to the entrant who submits the best operating feature of a dragster in the contest.

CONTEST RULES

1. Anyone residing in the United States and U.S. Possessions may enter except the employees of Monogram Models Inc. and *Model Car Science* Magazine and their families. *Model Car Science* writers are not eligible to enter.

2. Your entry must be built using parts from any Monogram car kits plus any scratch-built parts you may wish to make. Customize the model into your own version of the Dream Dragster. Make it as "way-out" as you wish, using any body style such as a rail job, coupe, truck, pick-up, etc. Although not necessary, parts of the T'rantula may make a good base from which to start.

3. Do not send us the model. Mail two black-and-white photos and a 50-word description of how you built it, and your name and address to:

MONOGRAM-MODEL CAR SCIENCE

Dream Dragster CONTEST 131 S. Barrington Place Los Angeles, California 90049

4. You may submit as many entries as you wish, but only your best entry will be selected for an award. Submit each entry in a separate mailing.

5. Upon entering, you agree to let Monogram Models Inc. and *Model Car Science* use photos of your car for editorial, advertising and public relations purposes. Photos and descriptions become the property of Monogram Models Inc. and *Model Car Science* Magazine, and none can be returned.

6. Entries will be judged on workmanship, originality and design.

7. This contest is void in states where taxed or prohibited by law.

ALL ENTRIES MUST BE
MAILED ON OR BEFORE
MIDNIGHT, JULY 22, 1970.

OFFICIAL ENTRY BLANK

Here's my wild entry for the Monogram-Model Car Science Dream Dragster Contest. Enclosed are two black-and-white photos and a 50-word description of my model. I understand that the photos and descriptions I submit become the property of Monogram Models, Inc., and *Model Car Science* magazine and none can be returned. I agree to abide by all the rules.

Name _____

Street and Number _____

City _____ State _____ Zip _____

Age _____ Phone Number _____

“SUPER COUPE”

By Brick Price



Building a custom competition coupe for Monogram's "Dream Dragster Contest."

Monogram's Dream Dragster Contest is one of the wildest contests ever run and the rules for winning are fairly liberal. Basically, all that is required is that you build a drag-oriented car as wild as possible. You aren't required to adhere strictly to class rules, but we've decided to build our competition coupe strictly by the book.

According to the AHRA rule book the top may be chopped and/or the body channeled, but not to exceed ten total inches in body height reduction. The radiator shell may be chopped to match the body reduction, but not exceed it. Fiberglass bodies or glass components are permissible. Bumpers are optional but they must include a push bar. Any automotive engine with any modifications can be used but the maximum allowable set-back is 25%. Windows, hoods and fenders are optional.

By using the 396 Chevy from Monogram's Bad Man Kit and the 1934 Ford kit, it's possible to build a typical competition coupe to run in the AA/B class. A lot of filing and fitting was required to fit a full hood around the 396, but it really adds to the lean streamlined look of the car.

Our coupe is typical of cars now running on the strip but let your imagination run wild on customizing if you want. Imaginative design goes a long way toward winning contests.

CONTINUED



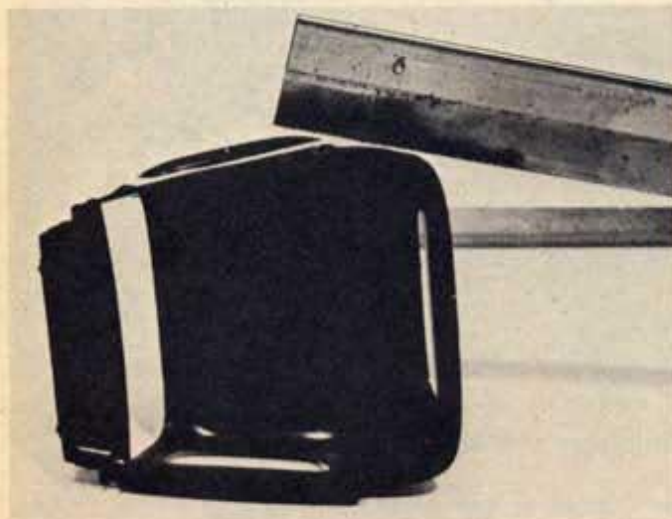
**1934
FORD**

Coupe \ Convertible

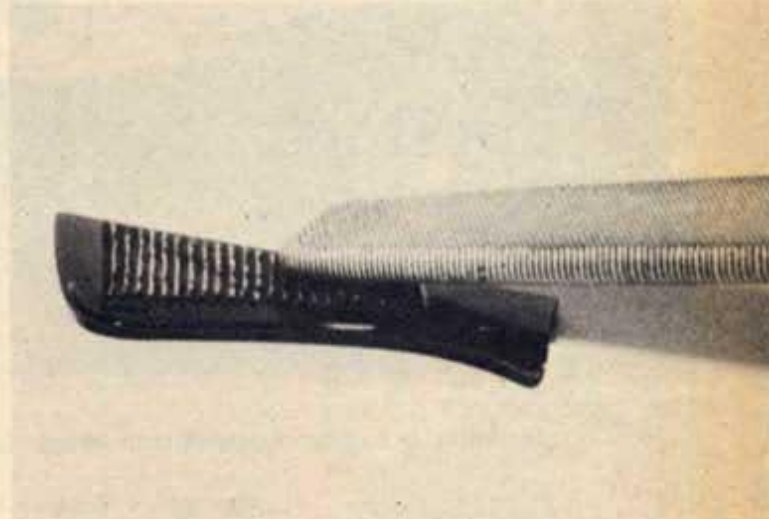
The Monogram '34 Ford has been around for many years and is still one of the best vintage Ford kits made.



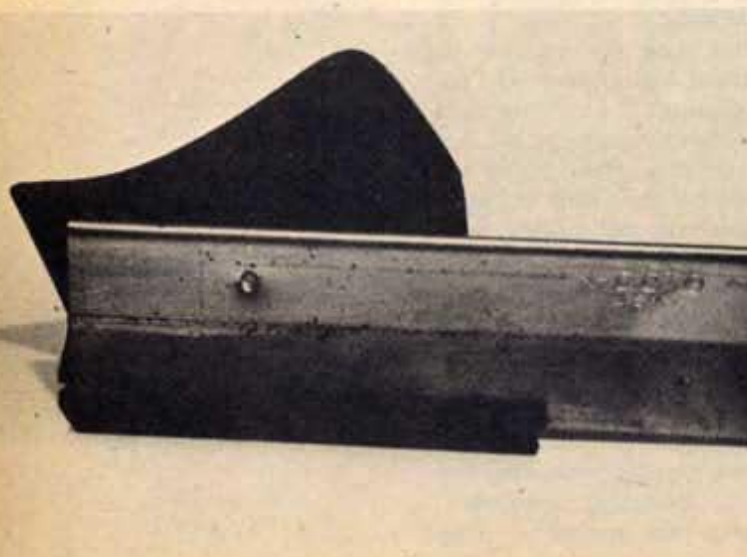
The coupe top has a sun roof which must be filed away and sanded smooth.



Place a strip of $\frac{3}{16}$ " wide masking tape around the top to indicate cutting lines. Try to make all cuts as straight as possible to save them in fitting later.



File the louvers off the side of the hood to simulate a fiberglass panel.



Trim $\frac{1}{16}$ " off the hood panel to match the lower edge of the hood to the body.

40/Model Car Science



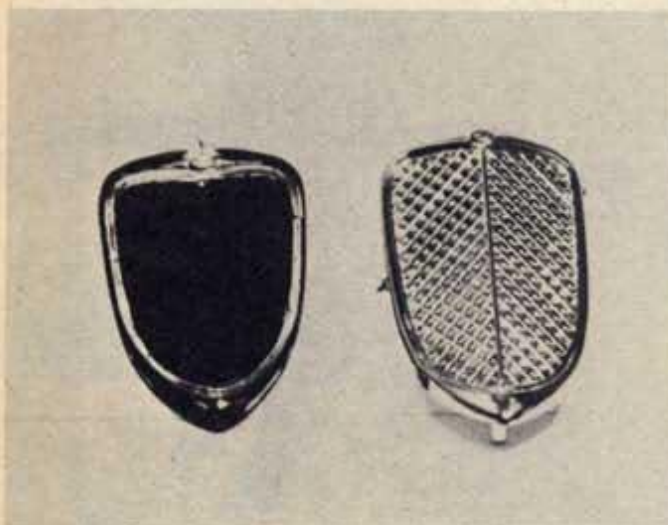
Tape all of the pieces together and check for fit before final gluing.



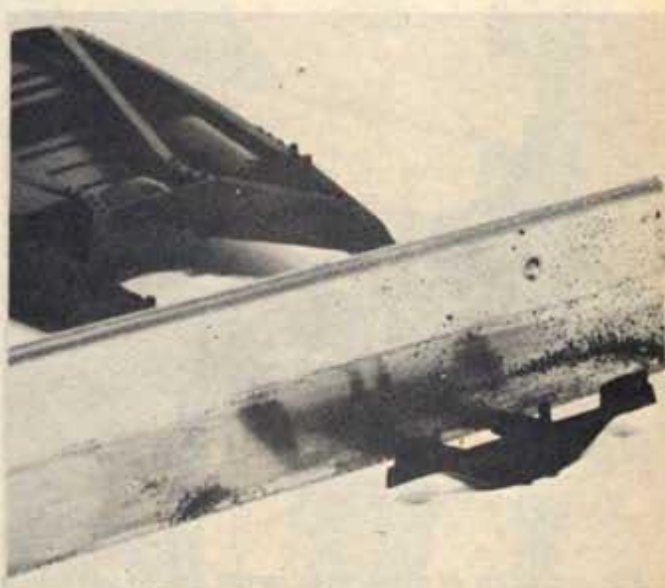
The rumble seat isn't needed, so melt bits of plastic to the inside of the trunk lid to keep it in place.



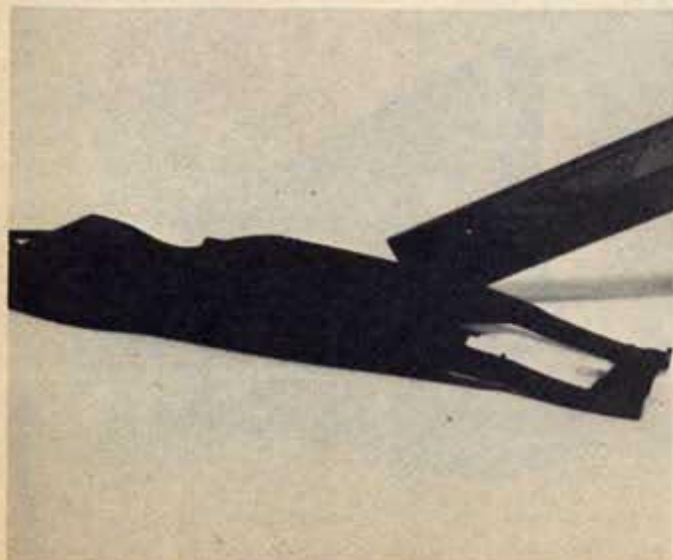
Use body putty to fill in any imperfections and sand smooth with No. 400 grit paper prior to a primer coat of paint.



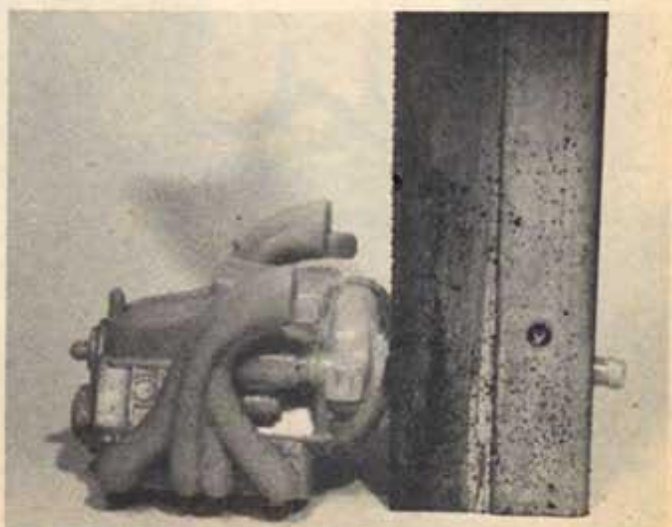
The grill shell was cut down per AHRA rules to match the new body height. Approximately 1/8" was cut from the center and the grill pattern was scraped off with a knife.



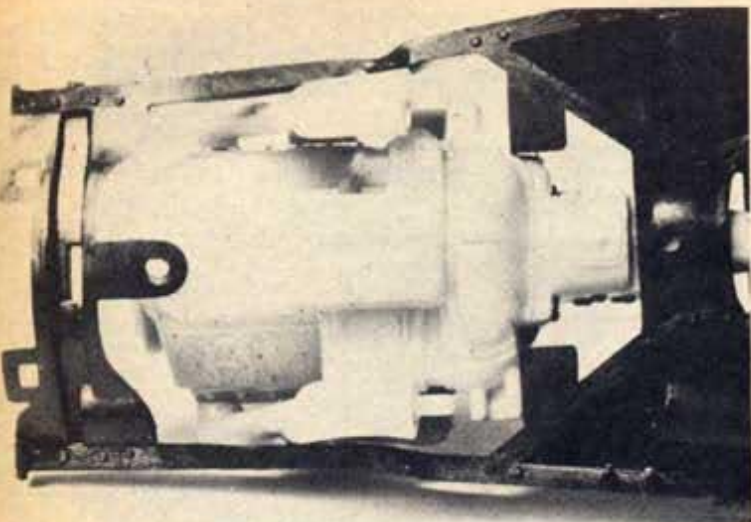
Cut off the bumper mounts but leave the push bar in place.



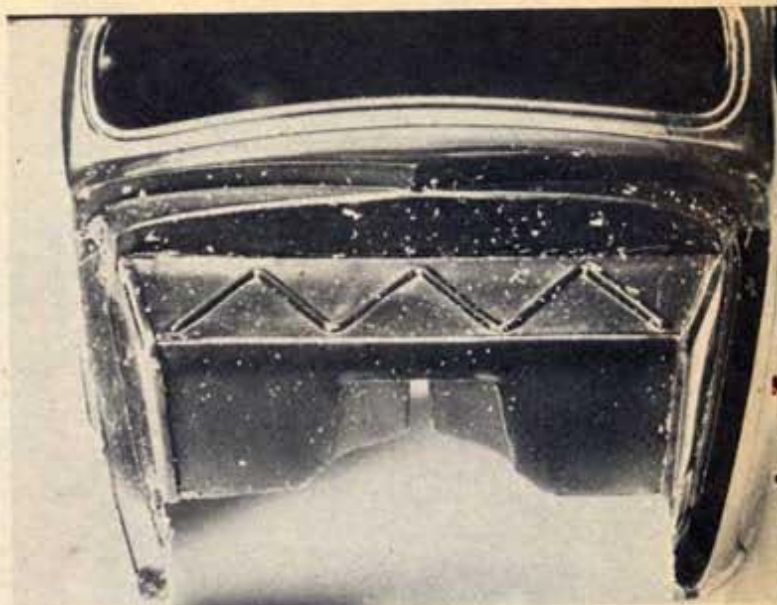
Cut the body mounts from the frame to lower the body on the chassis.



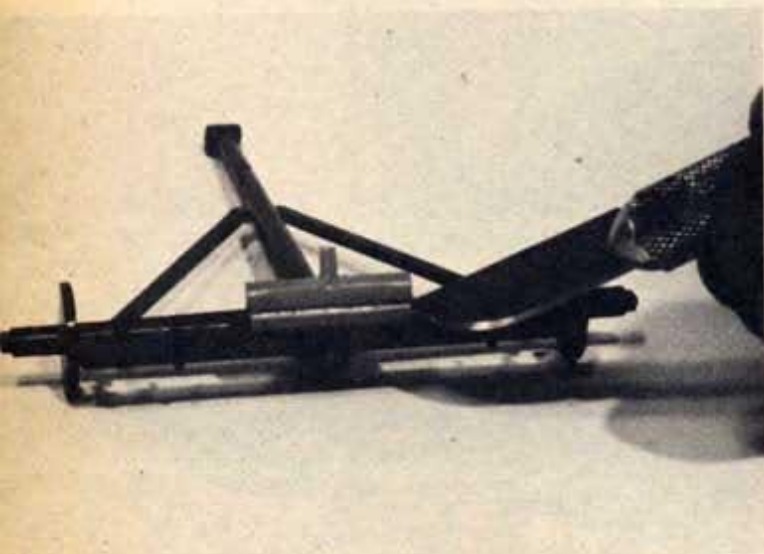
The 396 Chevy engine from Monogram's "Bad Man" Kit almost "bolts" in place, but it's necessary to trim parts of the engine and frame where interference occurs.



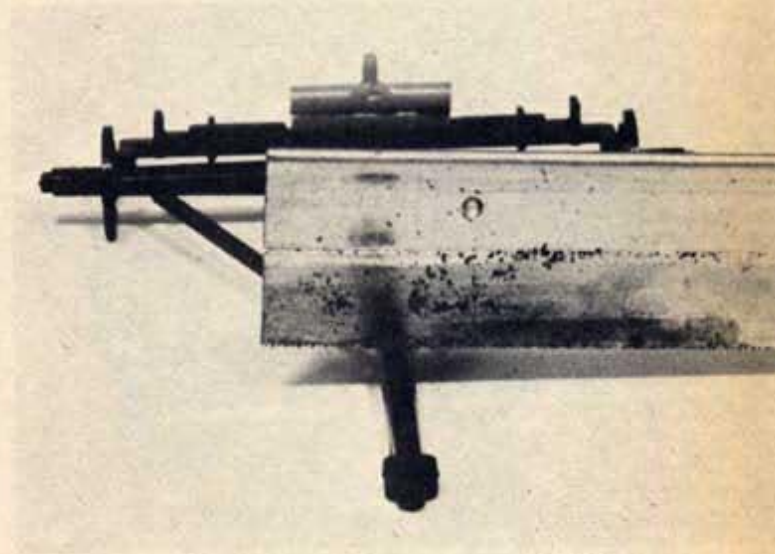
The engine may not fit in the frame if you glue the headers on and allow them to dry first. Apply glue to the headers and immediately glue them to the engine and place the engine in the frame.



File the firewall to clear the 396 transmission hump.



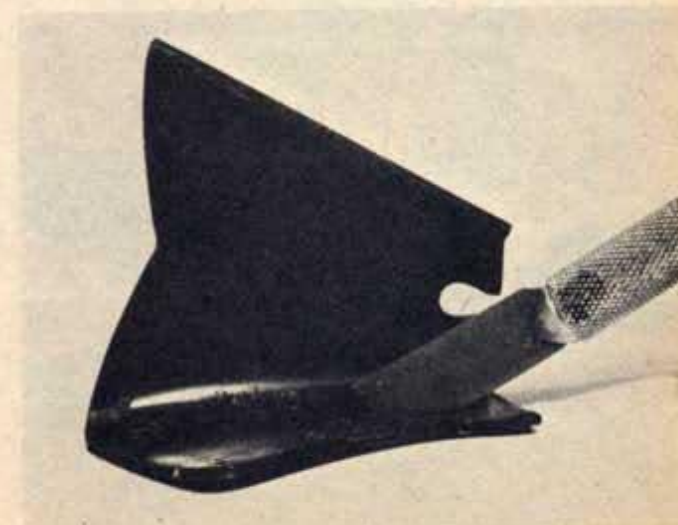
Glue two pieces of plastic tree to the axle to jack-up the rear end.



It's necessary to shorten the drive shaft since the 396 trans is longer than stock and the engine is set back.



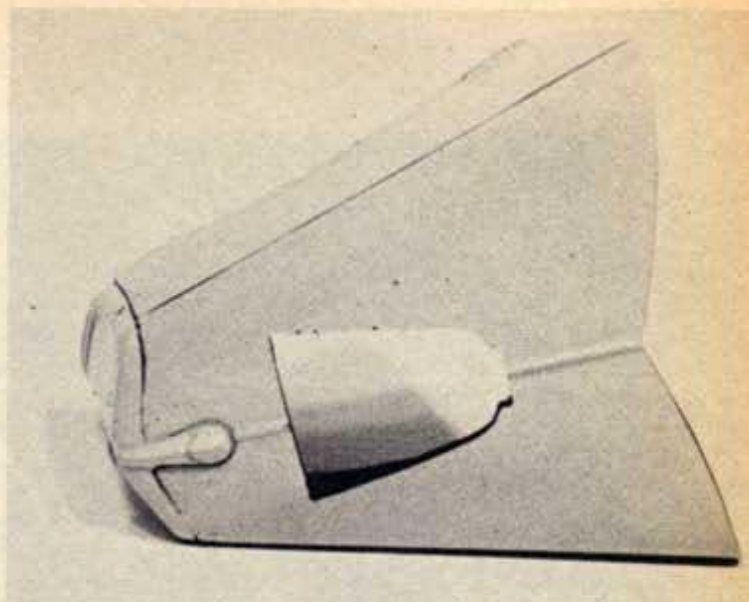
You'll have to add a strip of plastic tree to the rear of the chassis to support the body.



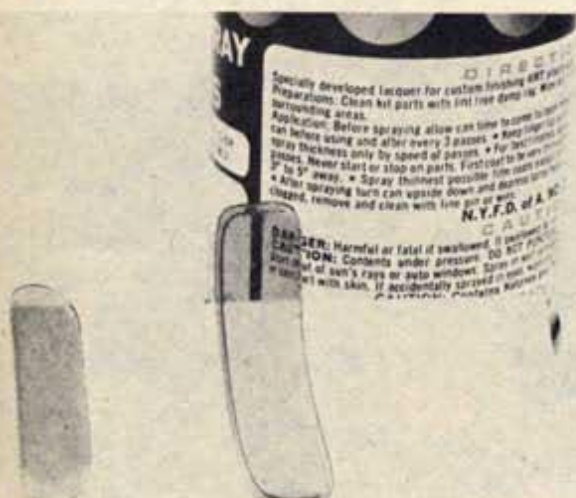
With the engine in place it was discovered that the hood wouldn't clear the headers. Simply scrape this area until it does clear.



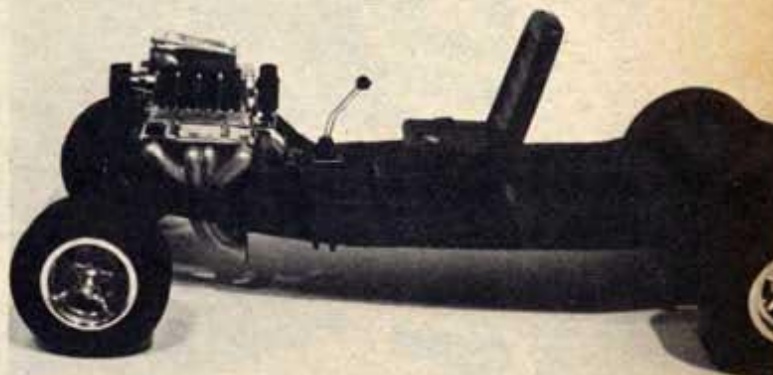
The "Bad Man" Mag wheels will fit on the '34 axle if the axle holes are enlarged with a rat tail file.



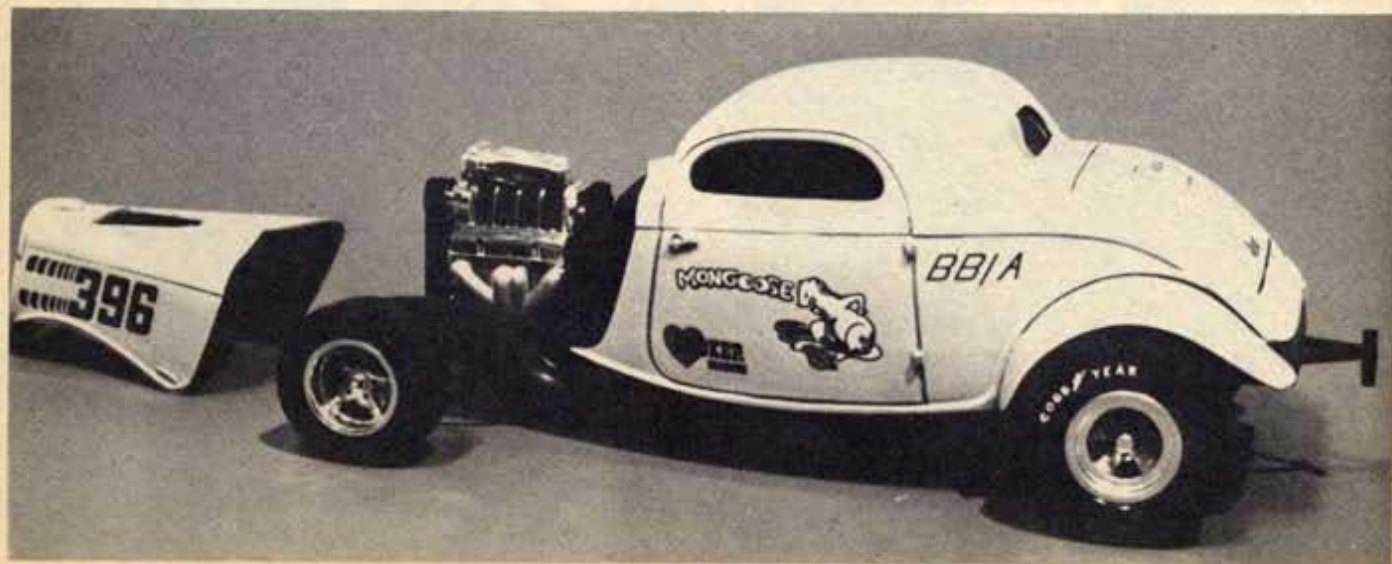
File a hole in the hood to the exact shape of the blower.



Any competition coupe wouldn't be worth its salt without tinted plexiglass windows, right? Spray the windows with any candy color and "presto," you've got beautiful tinted windows.



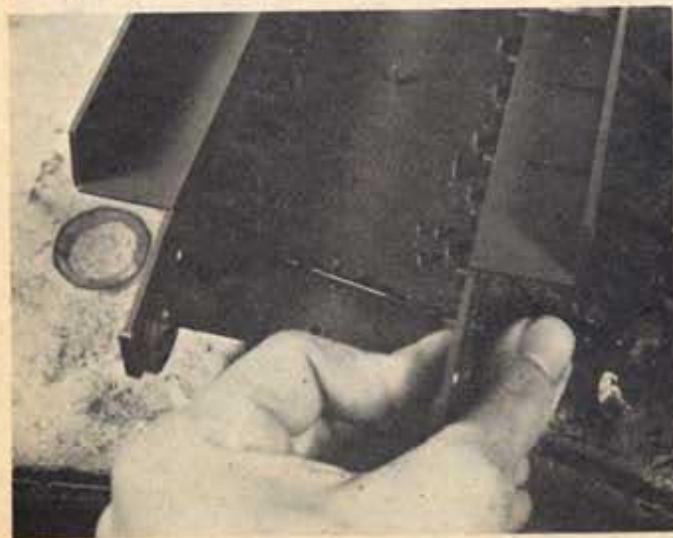
Glue this myriad of subassemblies together and . . .
... you've now created one of the wildest competition coupes ever.



Nice little details include detailed tires, painted mag spokes and decals.



Displaying the ultimate in realism, this Tiger I was photographed in Texas . . . or could it be Tunisia?



Since the Kit has working suspension, each torsion bar is inserted through the chassis side . . .



. . . and cemented into a socket on the opposite side. This permits each bar to move in an authentic manner.

Super detailing MRC's "Tiger I" tank kit

TIGER TANK

By Richard Marmo

Every so often, manufacturers will produce a model kit that stands head and shoulders above all comers. The latest one to deserve this description is a 1/25 replica of Germany's Panzerkampfwagen VI Tiger I. Anyone who appreciates super detail would be impressed by this particular kit.

Produced by Tamiya in Japan, and available in this country through MRC, the Tiger I kit contains all the needed parts for a completely detailed interior, in addition to the superb exterior. The fantastic amount of detail provides tremendous opportunity for the modeler to outdo himself. While normally selling for \$13.98, you can get yours for a bargain basement price of \$10.00 from The Squadron Shop, Dept. MCS, 23500 John R., Hazel Park, Michigan 48030. And for an extra \$4.50, The Squadron Shop will sell you a very useful reference book, Panzerkampfwagen VI, by Walter J. Spielberger & Uwe Feist. The instruction book is extensively illustrated, which is especially fortunate because those in the MRC kits are a literal translation of the Japanese text and about as useful. Wide use is made of the color blue to indicate glue points. With nearly 300 parts to the kit, this is a distinct advantage.

Right about now, you're probably saying, "What do I want to build a tank for?" Be assured that the tank is a motor vehicle, complete with engine, torsion bars, and even a steering wheel.

Try one; I think you'll be surprised.



For a better job, remove all road wheels from the "trees" before painting. Using an X-acto knife in a scraping motion, eliminate the mold mark from the rim of each wheel.



Masking tape, sticky side up, will hold the wheels while you spray with Pactra's "Mustard." Let'em dry and spray the other side.



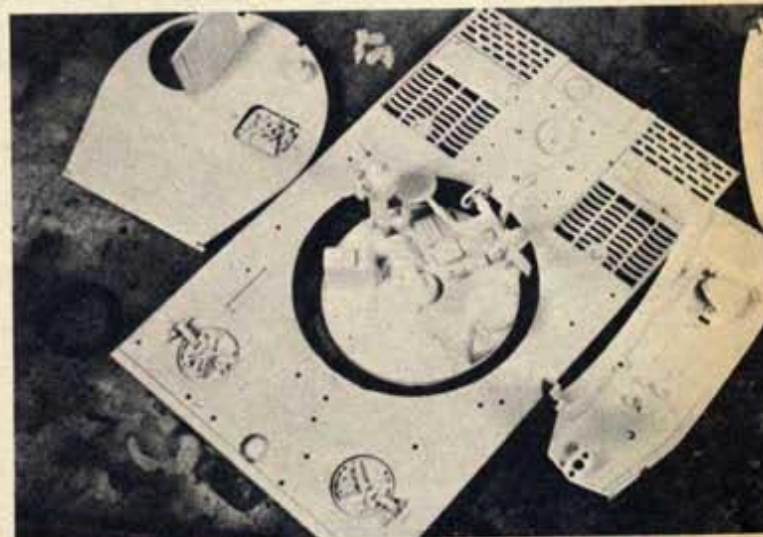
Using Floquil Weathered Black and a steady hand, paint the rubber tile scribed on the road wheel . . .



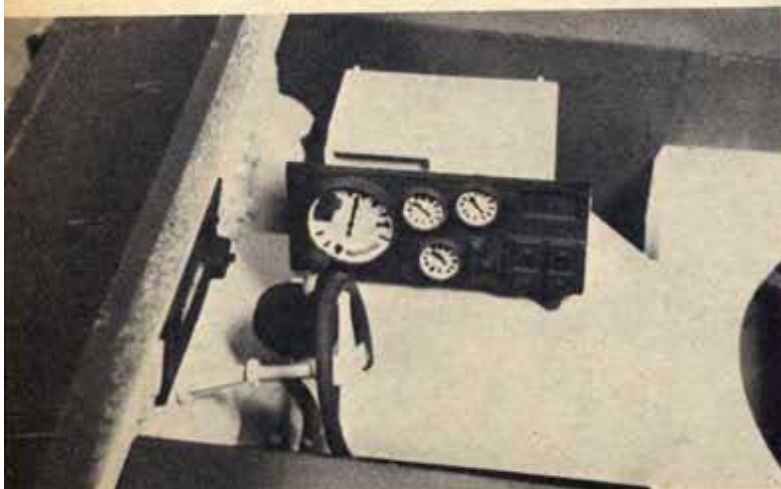
. . . and repeat 47 times.



Set the wheels aside for a moment and spray the chassis interior Pactra Steel. Then paint the exterior of the chassis Mustard.



In common with all tanks, except for seats and specific details, the Tiger's interior is overall flat white. Floquil was used here, but any good flat white will do.



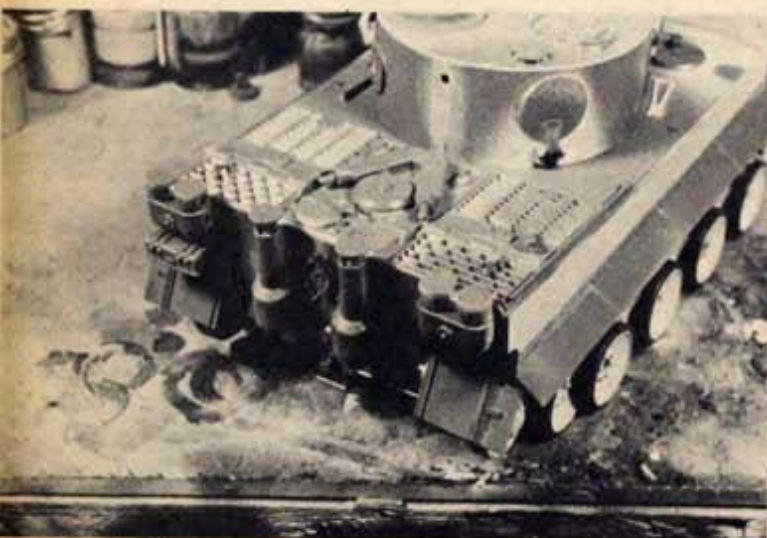
The instrument panel is a small model in itself. Painted flat black, the dials are white, while the figures and pointers are black. Upper left quadrant on the large dial is green, while the strip at five o'clock is red.



Wheels are installed after the chassis is painted. A special tool is included in the kit to enable you to insert the retaining hubs. Because of the interleaving you'll have to sort of "worry" the wheels onto their axles.



At last the gun turret is ready to install. In addition to the flat white interior, paint details include steel gun breech and weathered black commander's periscope. Don't forget a couple of dots of silver for the lenses. M.G. ammo containers are flat black, while the retaining straps and escape hatch latches are weathered black. All seats are steel.



In this view, you can see that the muffler covers are not installed until after the model is painted. Ditto for the rubber pipes that are part of the Feifel air cleaners.



The tracks are a soft plastic and are made up from 72 individual links per track. CAUTION: The MRC instructions incorrectly specify 87. Also, a nine link section mounts on the front glacis plate.



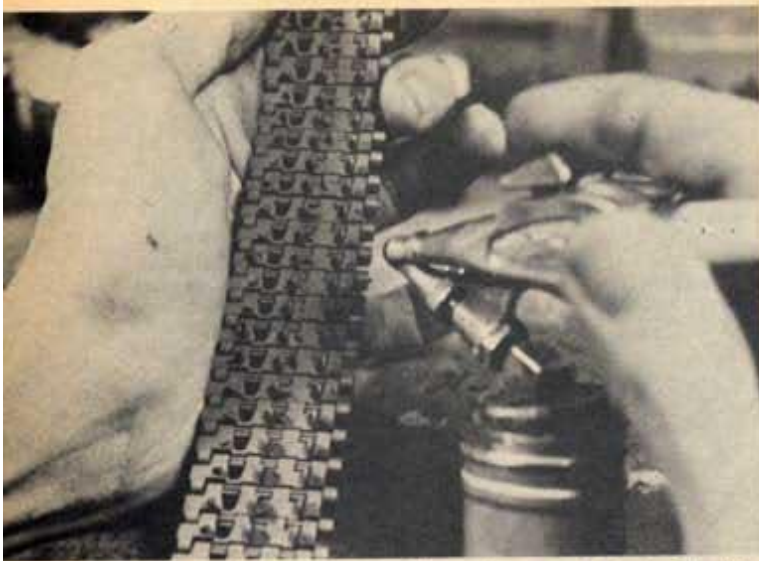
Here the model is basically assembled and ready for painting as soon as the road wheels are masked off.



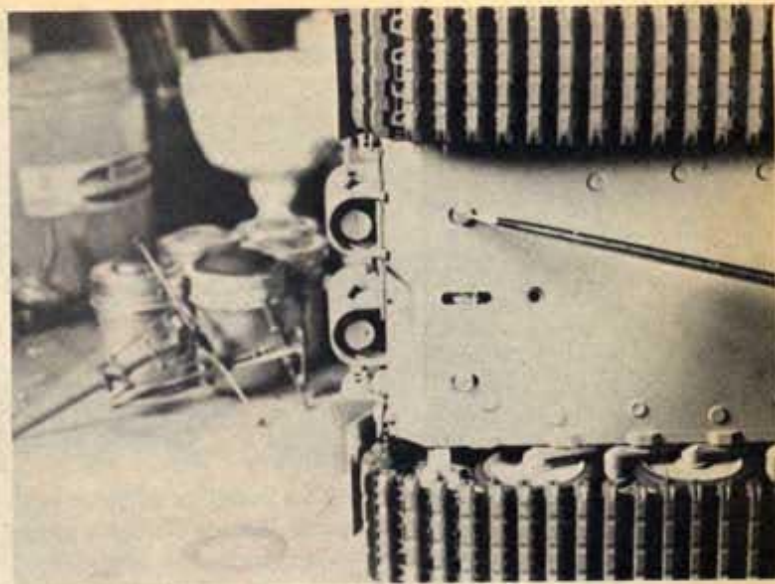
As before, Pactra Mustard is used as the over-all color. If you don't have an airbrush, the same color can be had in a spray can.



To obtain the proper weathered effect, the tracks are first sprayed lightly with Floquil Rust.



They are then gone over with a mist coat of Pactra Steel in such a way that just a hint of the underlying Rust shows through. The effect should be very subtle.



Once the tracks are installed, their tension can be adjusted by way of these two screws beneath the chassis.



With everything installed, it lacks only markings and weathering to be complete.



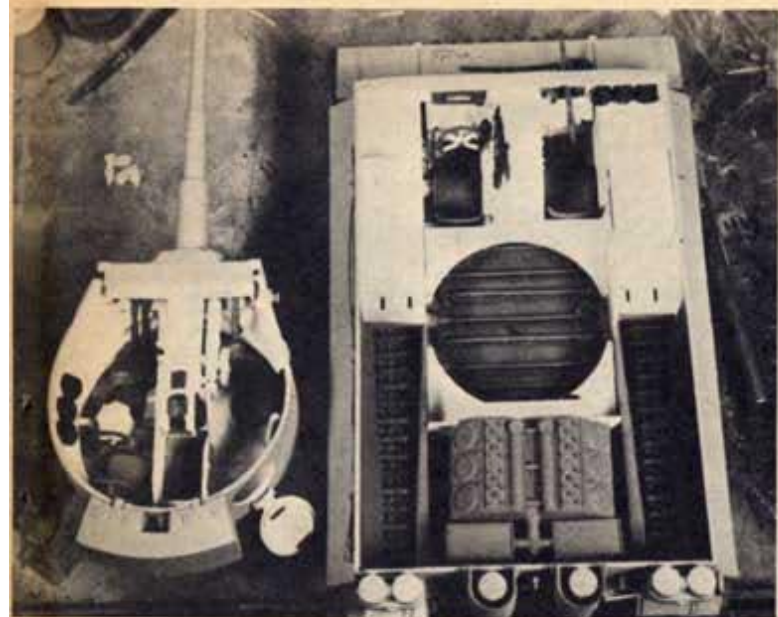
This particular vehicle was captured in Tunisia by the British. The Iron Cross and Rhomboid on each side are the only German markings. The others were applied – and incorrectly at that – by the British.



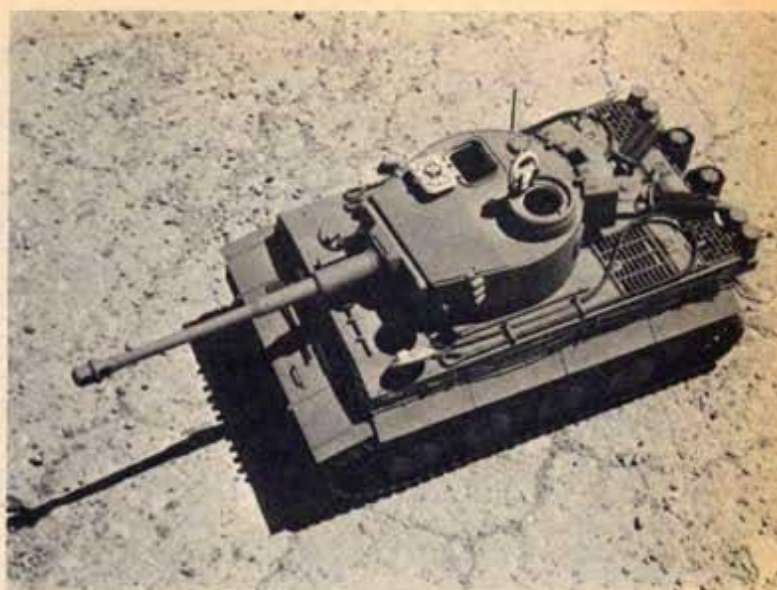
Weathering is minimal, due to the desert terrain. Floquil Dust sprayed lightly in a mist coat adds just the right touch. Remember, the greatest accumulation will be on the front of the vehicle and along the wheels and tracks.



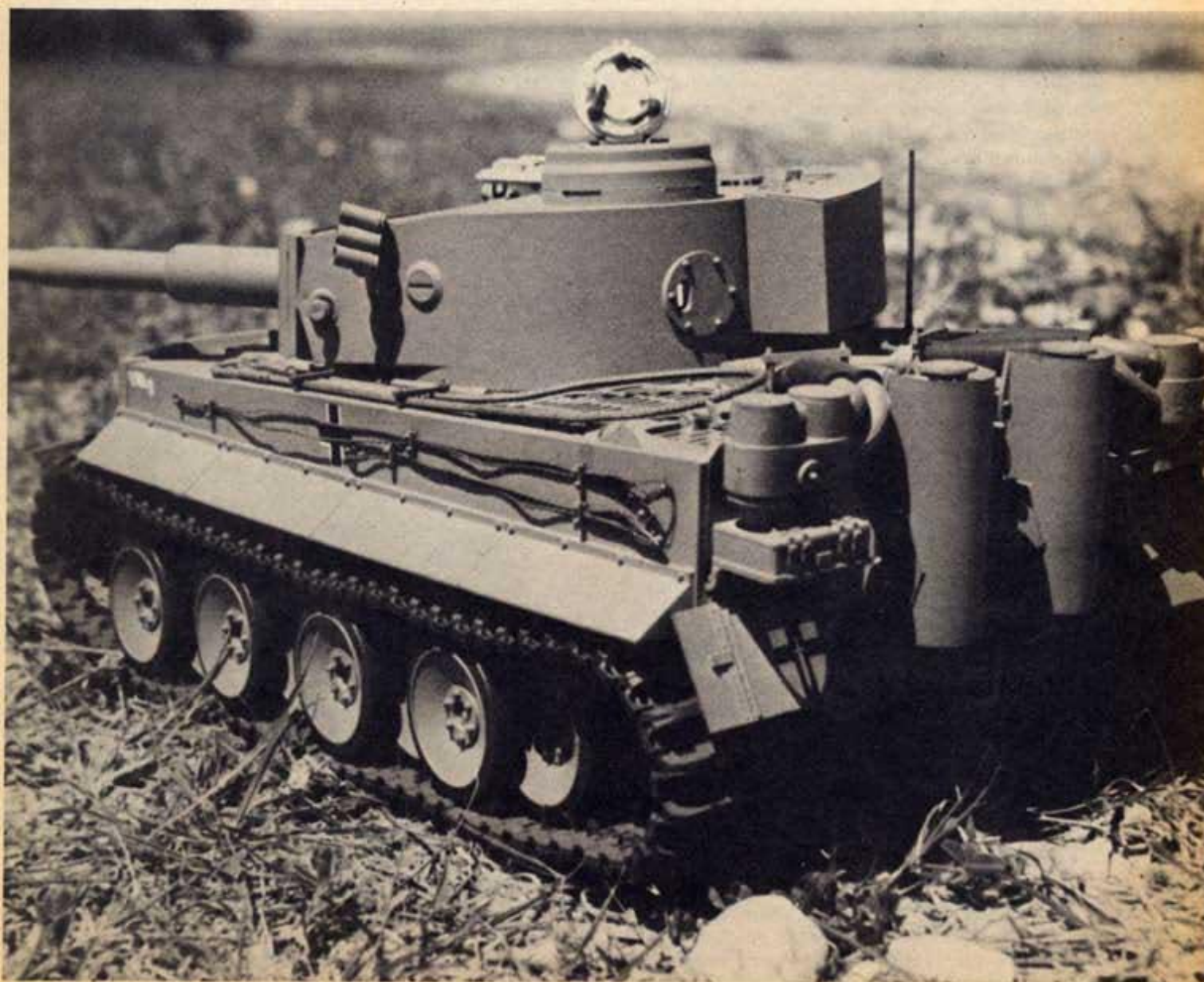
A very light "wash" of Floquil Grime and thinner, applied with a nearly dry brush, can be added to the engine grill and muffler tips.



In this photo, all of the interior details can be clearly seen.



With the removable sections in place, you can see some of the superb surface detail contained in the kit.



Even in model form, the Tiger seems overwhelming.

SUPER DUB!



Could this be Volkswagen's answer to the midengined Porsche 914?

It has taken a bit less than thirty years, but the superior performance and efficiency of a mid-engined "sports" automobile is finally reaching the streets. Those interchangeable front-to-rear-appearing boxes with airfoils are Porsche 914 automobiles, and they are production automobiles. Why, we wondered, didn't Volkswagen develop the famous "beetle" into a mid-engined car. Why not, indeed?

We took a long look at the current "Beetle" body/chassis, duplicated in Revell's "Love Bug" and "3-in-1 VW" kits, and decided that the 1971 Volkswagen could just as well keep its major styling and mechanical parts. The engine should be changed to a mid-chassis location and that ultra-high body must be lowered a bit. You might consider our "VeeDub" to be about as related to the stock "Beetle" as the Corvette is to the Impala Chevrolet. Our "SuperDub" is lower, wider, has better styling and better handling than the stock sedan could ever have.

To be a successful "dream" car or even a successful

"customized" stock sedan (you can consider the "SuperDub" to be either), the car must be practical. Even a sports car must have adequate room for at least two people, with an engine and suspension that could at least operate. The changes we have made in Revell's 1/25 scale Volkswagen could just as well have been made on a full size car. You could actually build a real 1/1 scale "SuperDub" following the sequence of assembly and the procedures we used on our model. The real car builder would substitute a welding torch and hacksaw to work his metal where we have used plastic cement and a hot knife. The detailing on Revell's body, chassis and engine is so accurate, and the scale dimensions of all these parts so close to exact 1/25 reproduction that a real "SuperDub" custom conversion could be built. Call the "SuperDub" a dream car prototype of the VW of the future or consider it a wild custom; either way the car is an attention grabber because it is obviously a VW, but even more obviously, not a normal VeeDub. It's "SuperDub!"

By Robert Schleicher

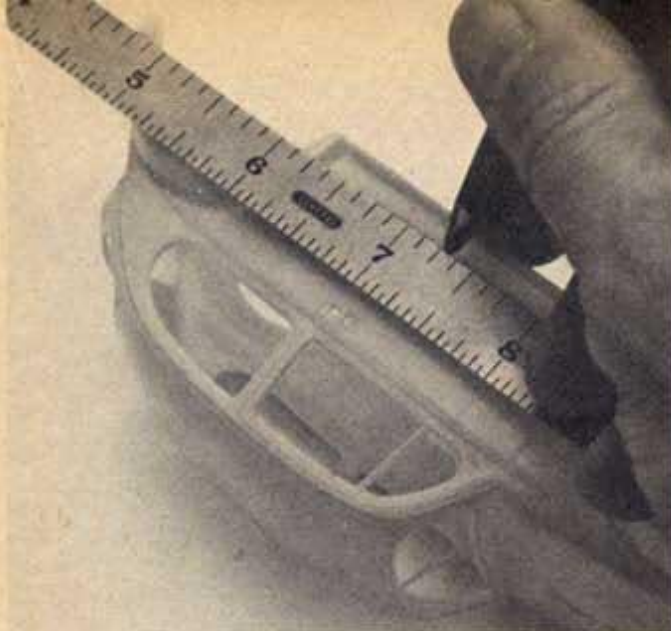


You could build a full-size version of our "SuperDub" VW sports car. For the 1/25 scale version you'll need a pair of Revell "Love Bug" or "3-in-1 VW" kits, wheels and tires from Revell's "Boss Mustang Funny Car," and some sheet plastic.

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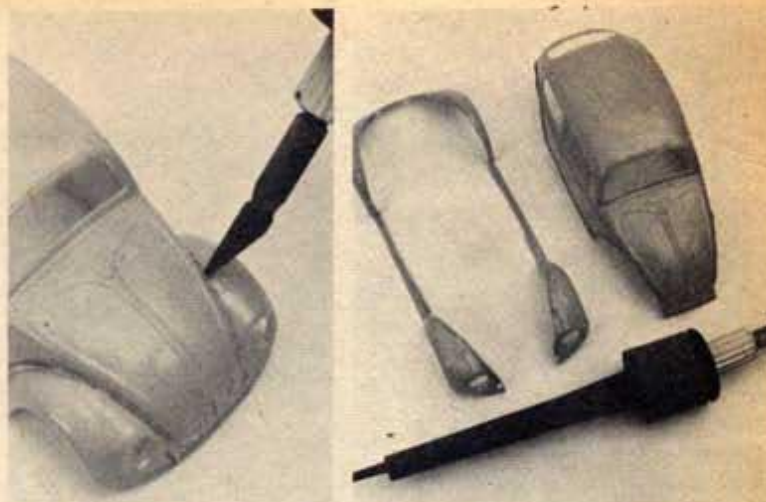
For a sporty car, that VeeDub body has to be lowered. Mark where the fenders join the body — we'll start chopping there.



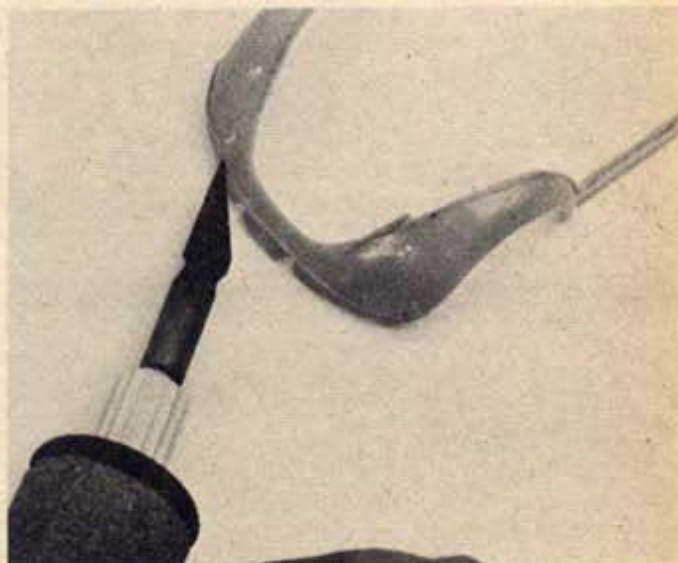
Mark a line $\frac{3}{16}$ " above the bottom door line. This is the amount we're going to lower the body and this panel will be needed.



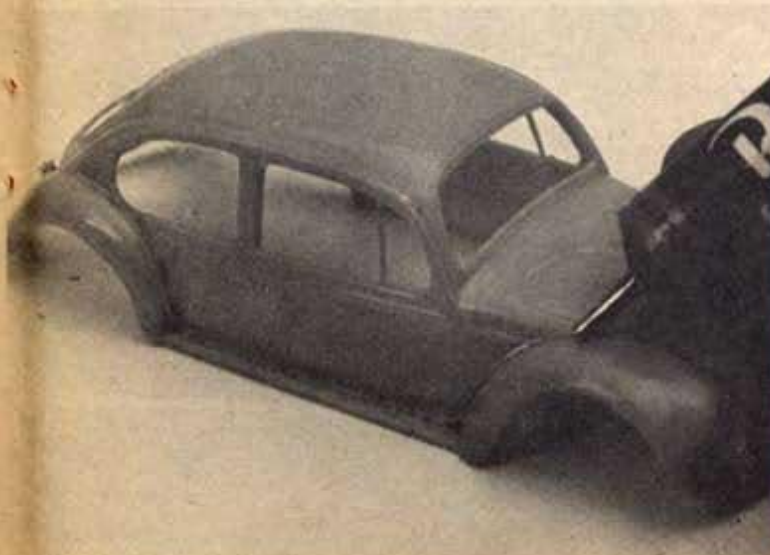
The running boards are left attached to the fender piece. Cut off that $\frac{3}{16}$ " marked on each side of the body.



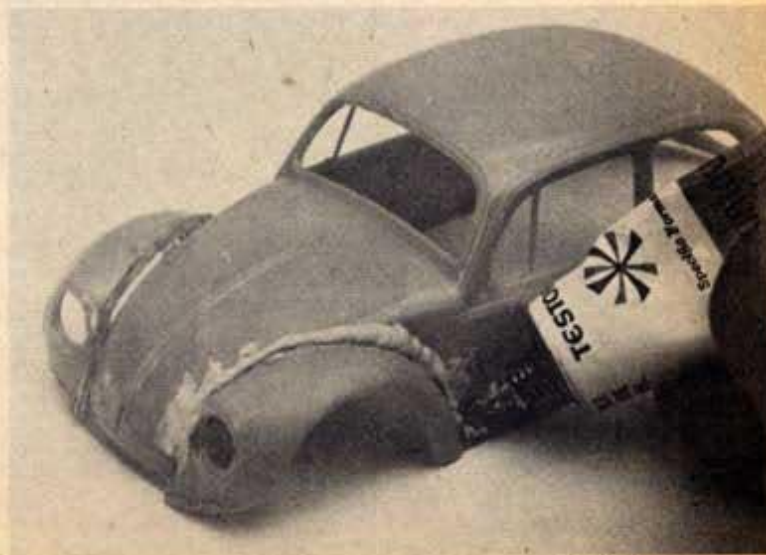
If you use two Revell VW bodies, you can make rough cuts with a razor saw to retain one body piece and one fender piece. We used a hot knife and only one body. If you are careful, the hot knife will make a neat, clean slice right at the seam.



About $\frac{3}{32}$ " is sliced away from the front and rear splash pans so they'll clear the ground with the lowered body.

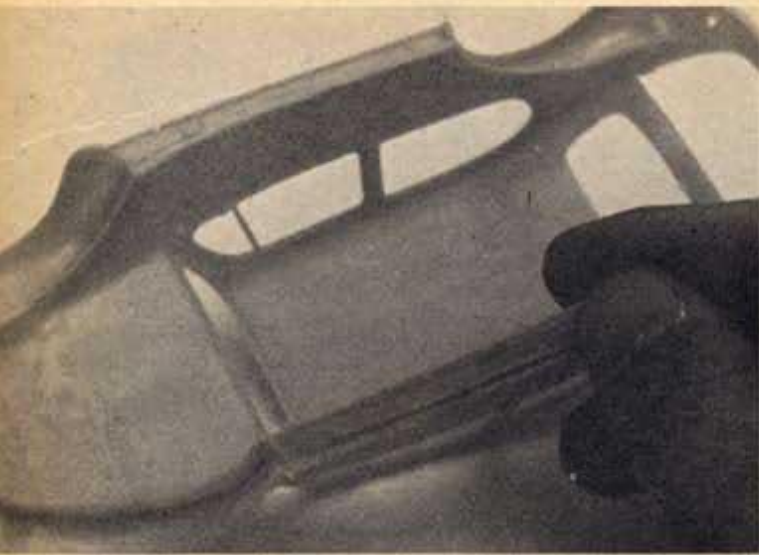


Set the body and fender pieces on a metal or glass plate while the glue dries. Use small amounts of glue.



Allow the glued body/fender seam to dry overnight before applying thick model body putty to the wider gaps.

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Glue the 3/16" pieces cut from the body sides to the bottom of the running boards. Even the undersides will be finished here.



Fill in a smooth-radiused bead of body filler to mold the fenders and running boards to the body. Fill underside too.



Enlarge both front and rear wheel cutout radii 1/32" with a file. Cut 1/4" wide pieces of .020" sheet plastic for lips.



Sheet plastic lips, or fender flares, extend rear fenders 1/4" on each side; front lips add 1/16". Fill lips' seams.

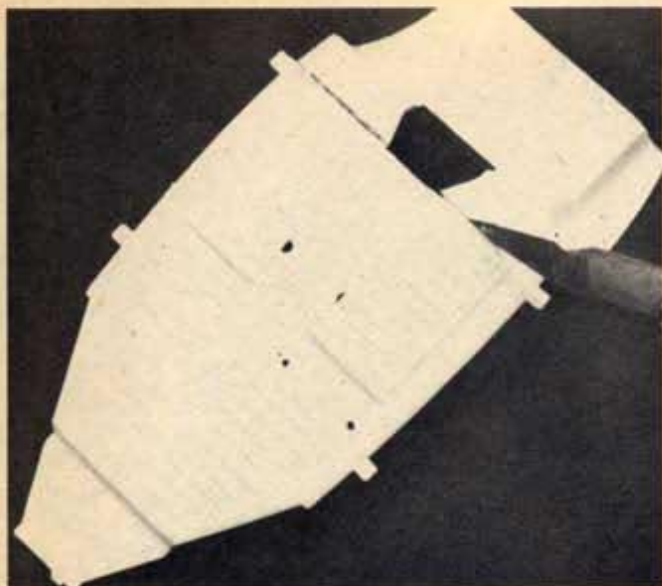


Body will have to be primer painted at least three times to show up roughness at seams. Sand with No. 600 "wet" paper and reprime.

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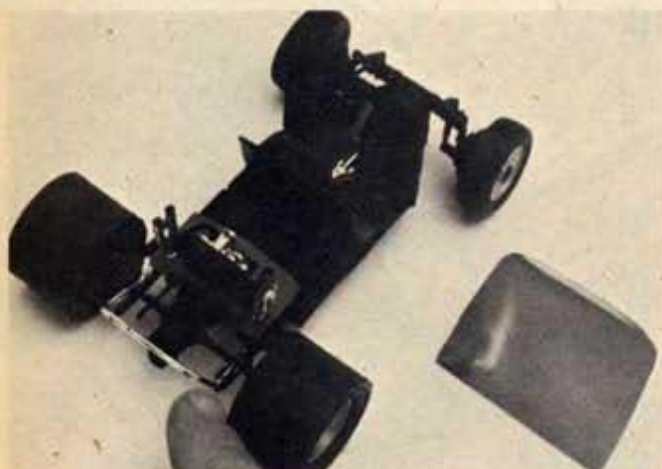
Edges of fender flares are trimmed to give gradual flare to the body's shape. Sunroof is from Revell "Love Bug" VW.



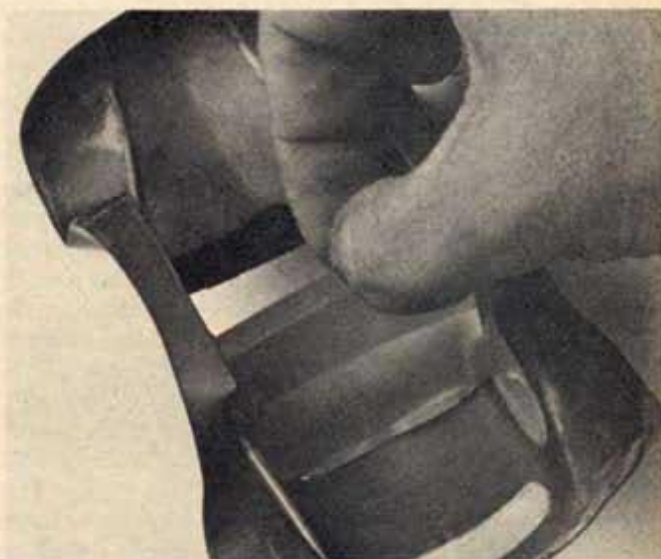
To convert the Revell VW chassis to a mid-engine, slice the chassis pan just behind the rear body mounting tabs.



TWO chassis yokes, or backbones, are cut as shown (one right and one left) to be used to mount engine, reinforce frame.



Chassis yokes now extend under seats rather than down center. Revell VW engine is mounted in front of axle. Tires and wheels are from the Revell "Boss Mustang Funny Car" kit. Rear body support is VW kit's rear chrome bumper bar.



Cut a "firewall" to match inside contour of body at center door pillar. Rear windows are sanded for "frosted" look.



The general lines are unmistakably VeeDub but there's something noticeably special about our "SuperDub." To be "street legal" in most areas car would need wider rear fenders (or narrower rear tires), tail lights, outside rearview mirrors, and license plates.



EXOTIC ENGINES

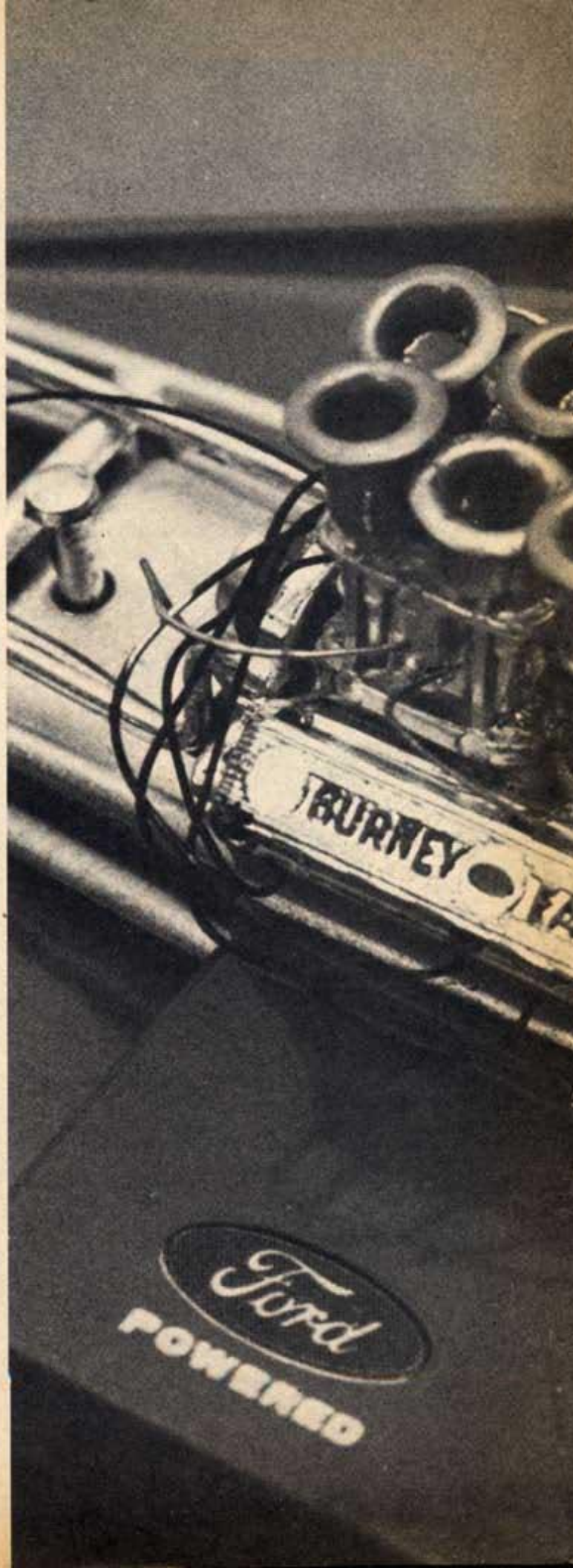
AN OPEN AND SHUT CASE OF CARBURETOR BUTTERFLIES ON MPC'S 1/20 SCALE SNOW DRAGSTER.

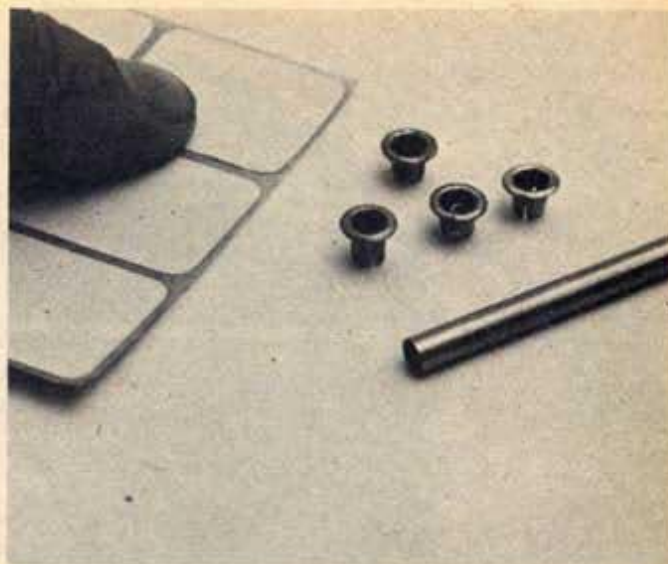
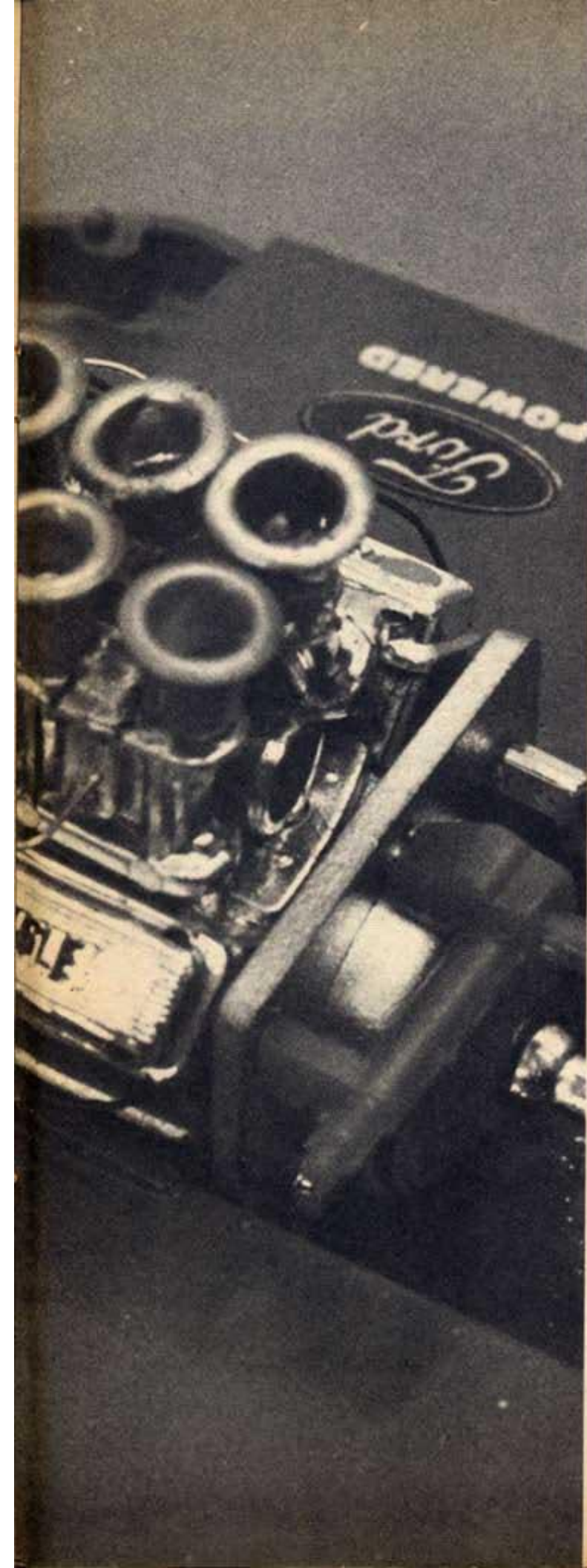
Can you add too much detail to a model? We think not, as long as you're enjoying what you're doing. There's room to question the value of adding detail to the inside of a model gas tank or some other area where no one could ever see, but the amount of visible detail you add need only be limited by your imagination.

Extra detail on a model car (or motorcycle or snowmobile) seems to be most noticable on the engine. On the full-size vehicle the engine area is a veritable maze of odd-shaped parts and a tangle of wires and cables — the model kit makers do an excellent job of furnishing most of the maze of odd-shaped parts, leaving the addition of the wiring, cables and any other details up to you. Past issues of *Model Car Science* have described the proper installation of gas lines, ignition wires, and brake hoses on other MPC models. Now we'll take you one step farther in that search for additional visible detail for any brand of 1/20 or 1/24 scale kit.

Few racing cars are equipped with air cleaners or other covers over their carburetors, fuel injection stacks or supercharger inlets. The air's path into the engine is first interrupted by the "butterfly" or sliding valves that control the air portion of the intake charge. When you look down a carburetor throat or injector stack, or into the mouth of a supercharger's air intake, these are the valves you see. Since your eye naturally focuses on these air intake areas of the engine, the addition of a bit of extra detail is bound to be noticed.

On engines with those funnel-like "velocity stacks," you can perk up the detail by replacing the plastic "stacks" with metal ones and add half-open throttle valves inside the "stacks." The best source of scale "velocity stacks" is either a model/hobby shop that carries parts for flying model airplanes or a shoe repair store. What you're looking for are "eyelets," used for leading a model airplane's control lines or for the lacing holes on a boot. They shouldn't cost more than a couple of cents a piece and a variety of sizes are available ranging from about 1/16" to 1/2" in small-end diameter. The real-life look of these metal "velocity stacks" will tend to draw the viewer's eye to them; then they'll catch a glimpse of those half-open butterfly valves inside and really get a shock. Both are good points to give contest judges a little extra to think about your MPC model too.

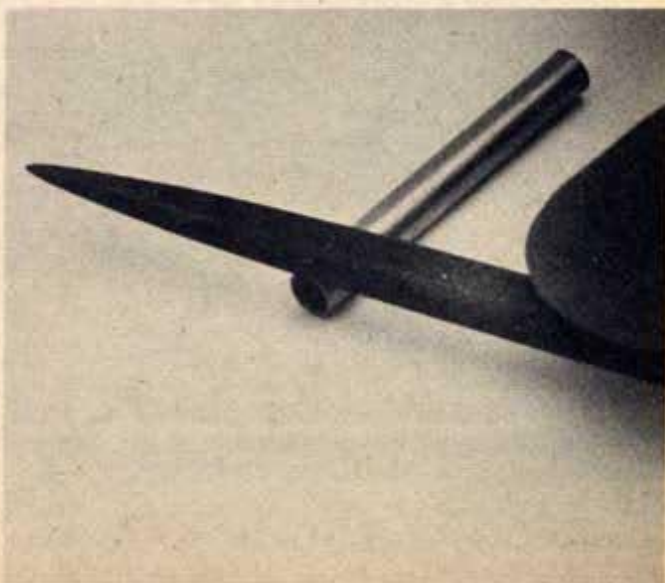




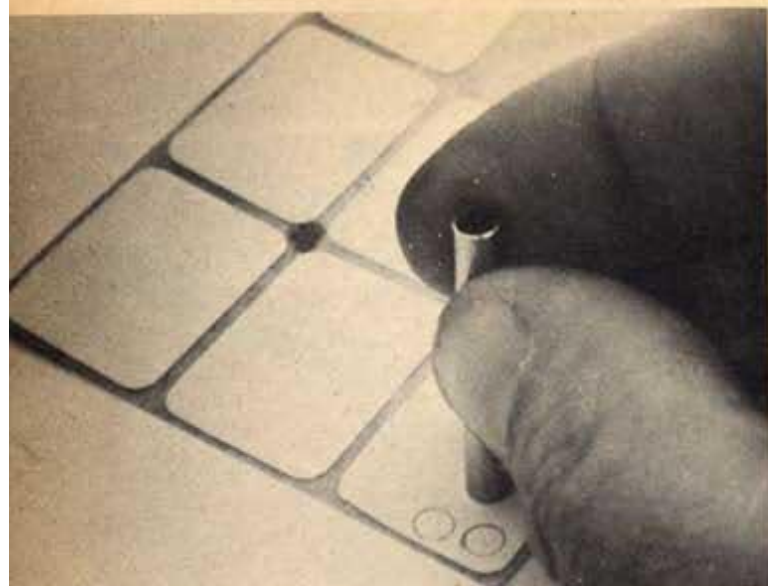
For simulated carburetor velocity stacks and working butterflies you'll need some shoe-lace ferrules, 1/8" K&S brass tube, some gummed-back labels, and .010" steel wire.



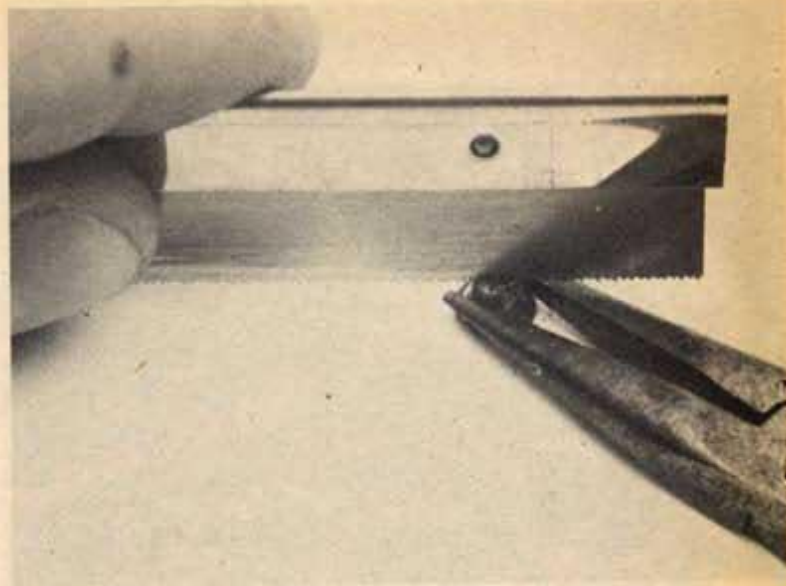
Cut off a three-inch length of the 1/8" K&S brass tube and file the inside edges of one end perfectly smooth and even.



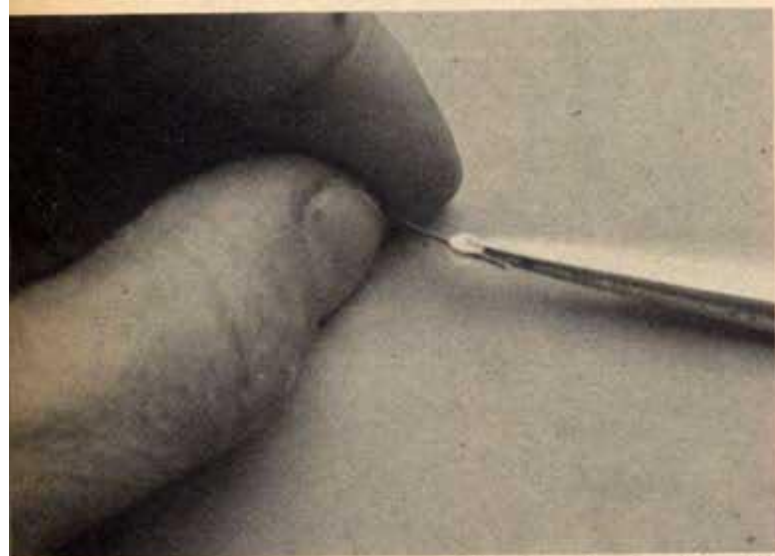
File the smoothed-off end of the 1/8" tube around the outside until the very edge of the tube is razor sharp.



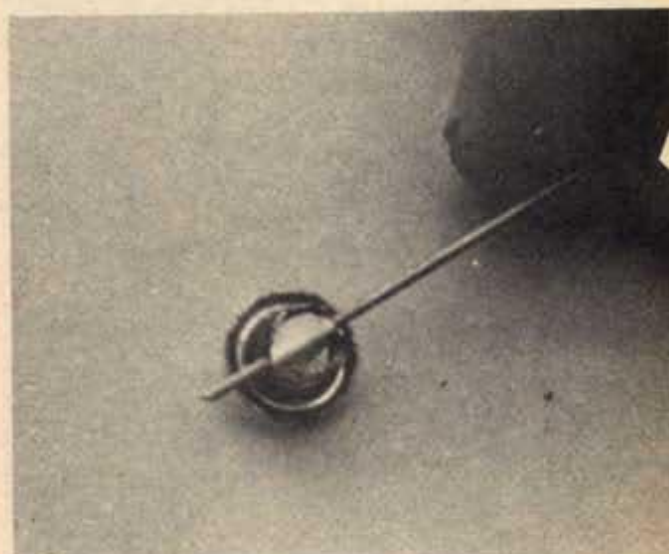
Use the sharpened end of the 1/8" brass tube as a punch to punch out 1/8" circles of the gummed-back labels.



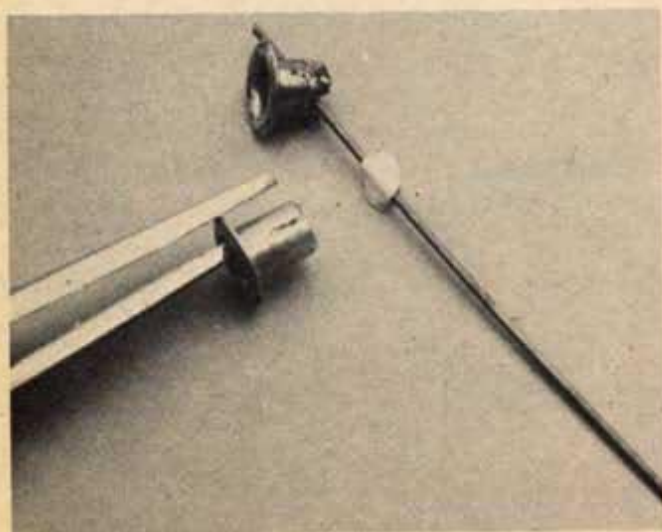
Use a razor saw to cut down into the smaller end of each of the brass ferrules about 1/8".



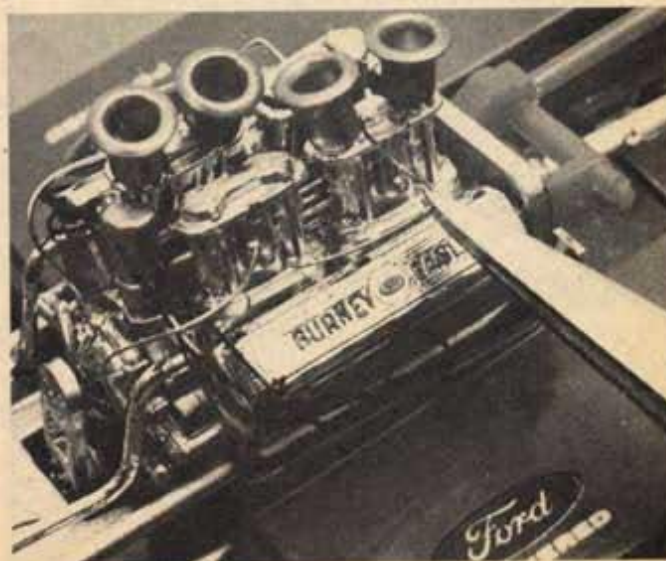
Cut an inch-long piece of .010" piano (steel) wire. Stick two of the 1/8" gummed circles glue-to-glue over wire.



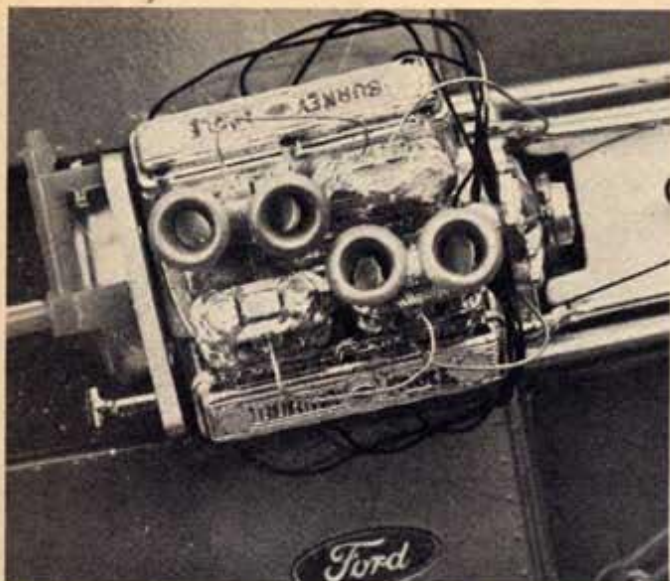
The piano wire can be glued inside the 1/8"-deep saw cuts you made in the brass ferrules.



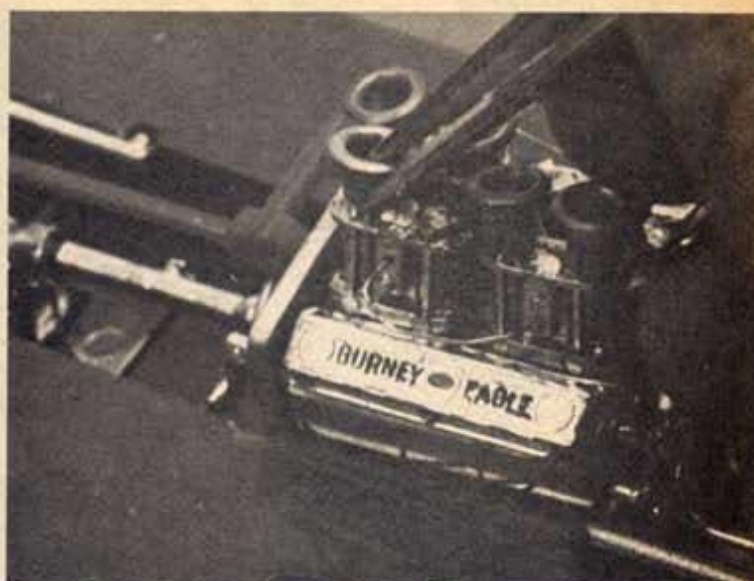
Check velocity stack spacing on model, then stick another pair of gummed 1/8" circles over the wire and inside ferrule.



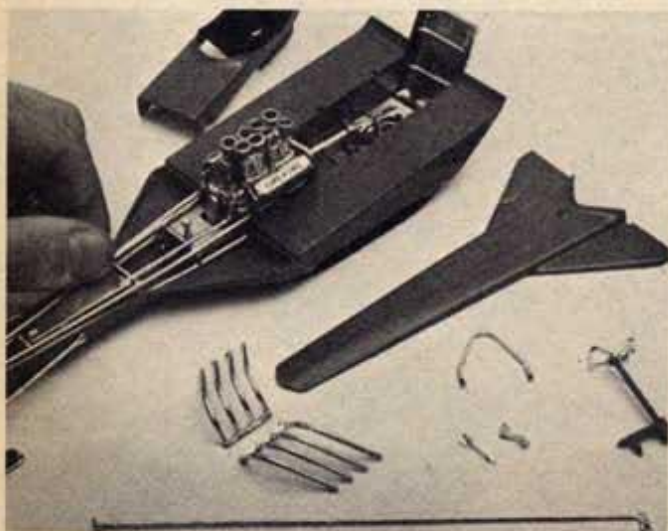
The engine should have any or all gas, oil and ignition wires installed before you add the velocity stack details.



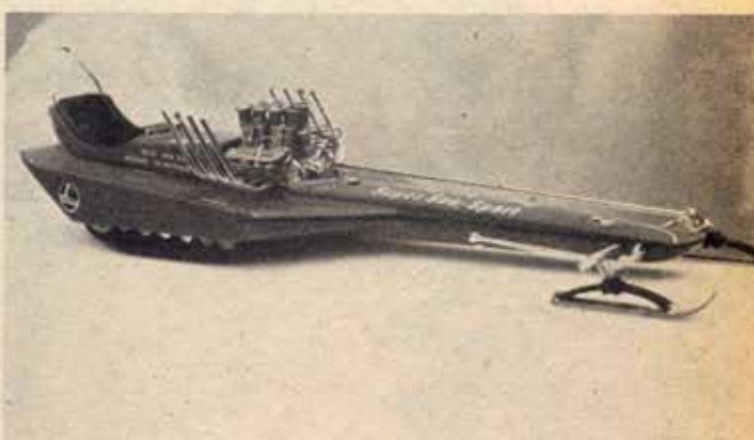
It is best to install velocity stacks, on Weber carbureted engines like this, a pair at a time.



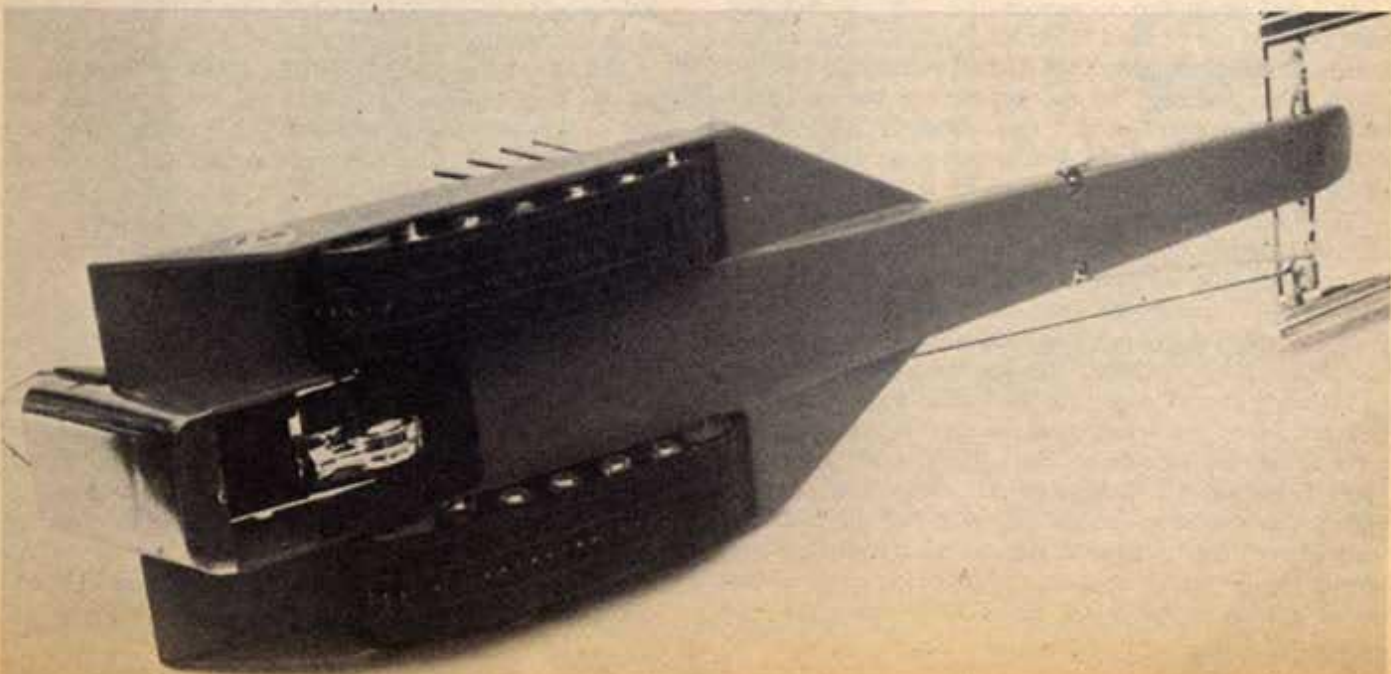
Use epoxy to hold stacks to engine. The pins molded into tops of carbs will have to be cut off to clear new "stacks."



Gurney-Ford engine is just one of the extra details possible in MPC's giant 1/20 scale Rupp "Super Sno-Sport" snowmobile dragster. Exhausts fit on last.

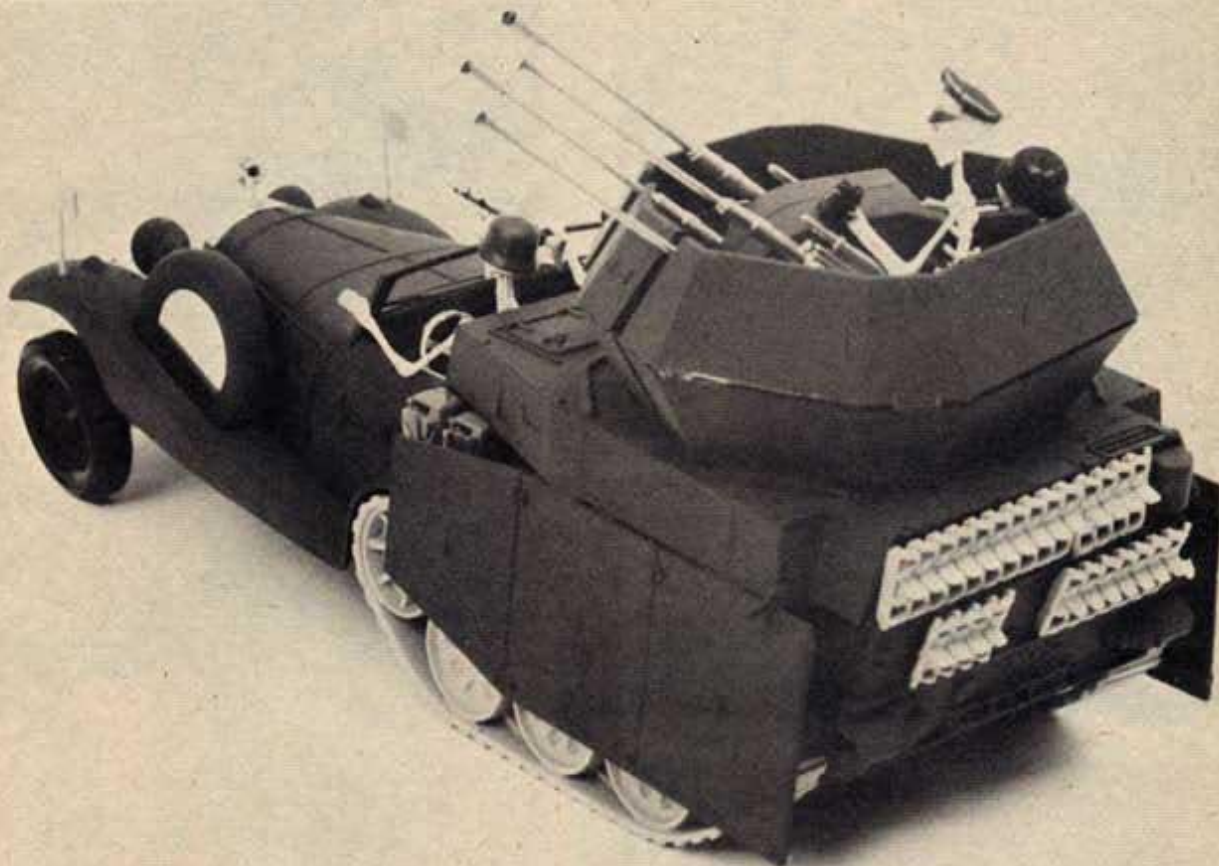


MPC's 1/20 scale kit is a precise duplicate of Rupp's most powerful full-size snow dragster. The velocity stacks and half-open butterflies could be fitted to any of MPC's giant scale kits with equal effect. You prospective jewelers could even make the butterflies operate through the accelerator pedal?



SNOOPY SHOOTER

Monogram's military "mod rod"



By Robert Schleicher

The current trend in the car show rod designs is in the direction of trucks and other such specialized vehicles. The most popular rod of the 1969 show season was the full-size version of the Monogram "Red Baron" as designed by Tom Daniel. Tom followed up the put-on war gaming theme with the "Rommel's Rod." Our "Snoopy Shooter" is simply another put-on rod that would most assuredly be able to put a halt to Snoopy's search for the Red Baron.

The "Snoopy Shooter" design background, to carry the fantasy a step further, was developed from a need to have an armored half-track equipped with antiaircraft armament. Herr Daniel's "command" car, oft called the "Rommel's Rod," supplied the fastest and most suitable chassis/engine combination with its eight-cylinder Mercedes Benz supercharged engine and track-propelled drive train. The armor and armament were borrowed, almost intact, from the variants of the Monogram Mark IV German tank; the Panzerkampfwagen's "Schurzen" skirted armor was used to add further protection to the top plates of the Mark IV, while the 20mm. antiaircraft cannon quartet from Monogram's Flakpanzer IV supplies the firepower to down just about anything! The armor turret surrounding the four

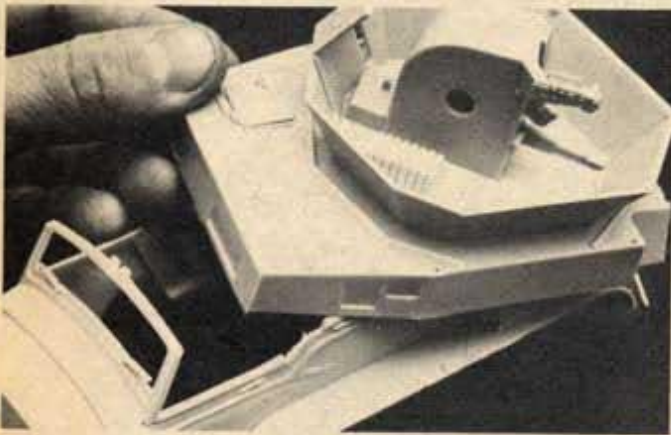
cannon is angled so most shells fired at it will be deflected off instead of the armor taking the shell as a dead-on hit. The gunsights raise and lower with the four cannon and the turret mount gives the four a full-circle sweep of the skies. If Snoopy or his Allied aircraft pals are there, this rig ought to do the job.

This particular version of the "Snoopy Shooter" is painted in a dark, night camouflage, grey. For those who like to play with paints, however, the World War II-vintage German Army and SS paint camouflage patterns in the Monogram tank kit instructions could be applied. All white (German winter camouflage) or light beige (the desert camouflage color) could also be used to carry out the authentic German armored vehicle theme.

We used both of Monogram's latest tank kits; the Panzerkampfwagen and the Flakpanzer IV and a pair of the Rommel's Rod kits to construct our "Snoopy Shooter." If you're willing to forego the armored side panels and the second two crew members, only one rod and Flakpanzer kit are needed. If you prefer decal markings to add a more accurate appearance, a wide choice of red/white tank I.D. numbers and German crosses are included in the decal sheets of the kits. It may not be a drag racing rod, but our armored half-track "Snoopy Shooter" sure is slated to be a show-stopper.

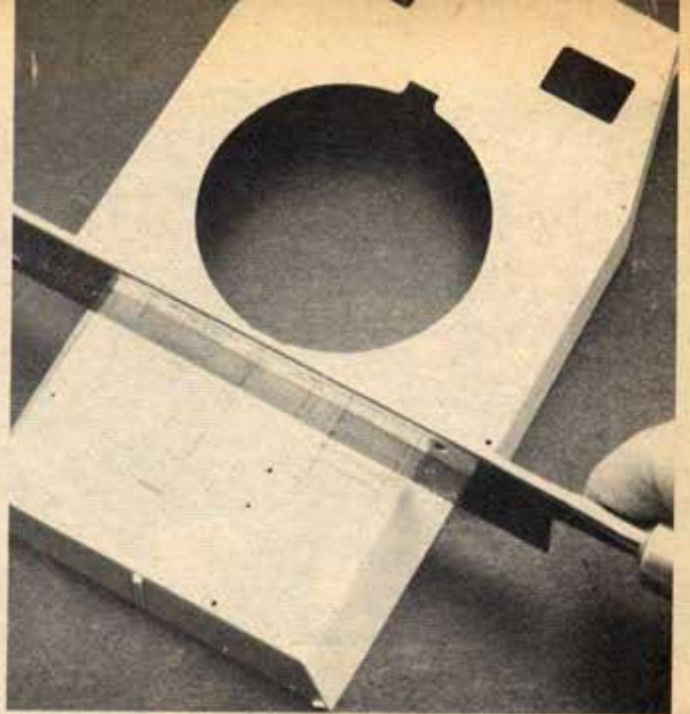


An armored half-track anti-aircraft gun with 20mm. cannon should be enough to down any "Snoopy." The military-mod rod is converted from Monogram's "Rommel's Rod" by adding tank kit parts.

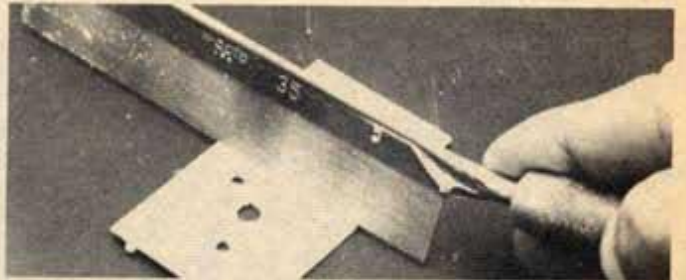


The turret bottom and gun carriage from the Flakpanzer are glued to the hull top before top is glued to the 'rod's rear seat.

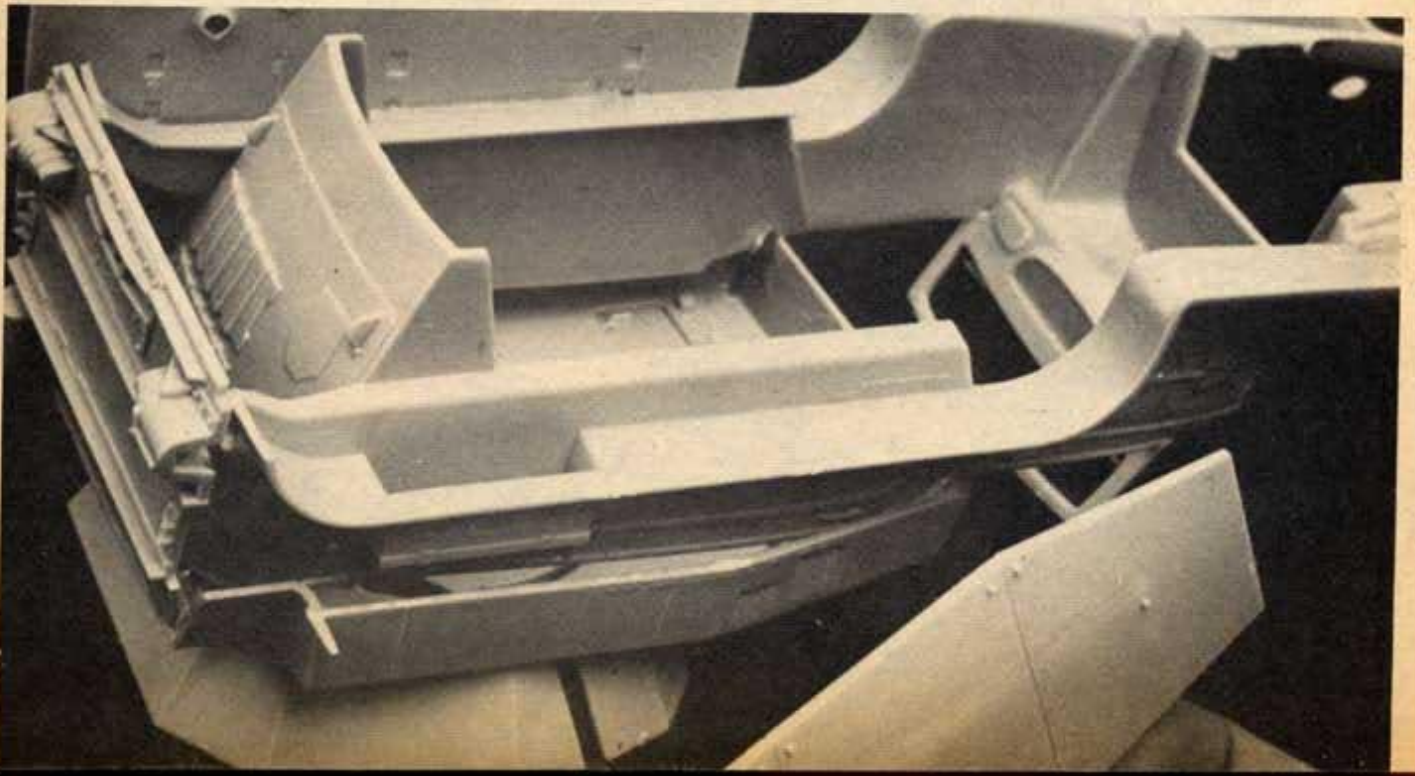
Both side skirt armor pieces must be shortened by one panel length to match size of the tank hull top. Glue in place.

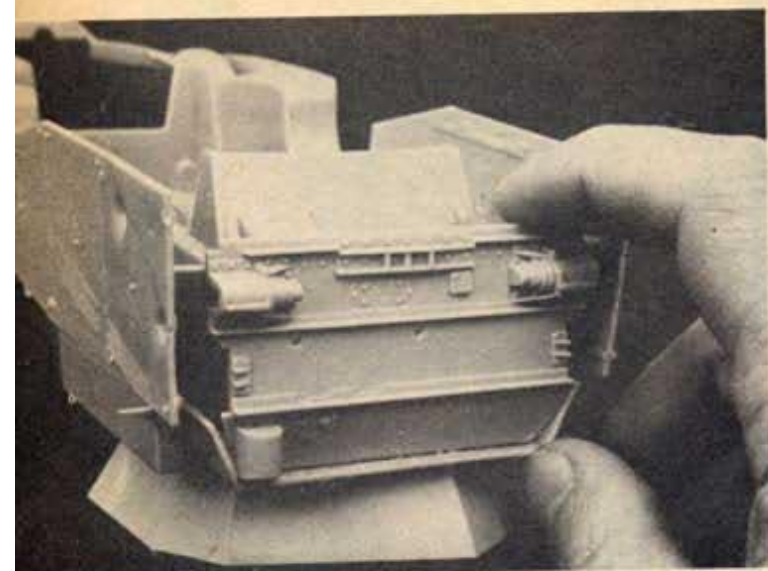


The hull from either of Monogram's tank Mark IV kits (the Flakpanzer or the Panzerkampfwagen) is cut at the vent edges.

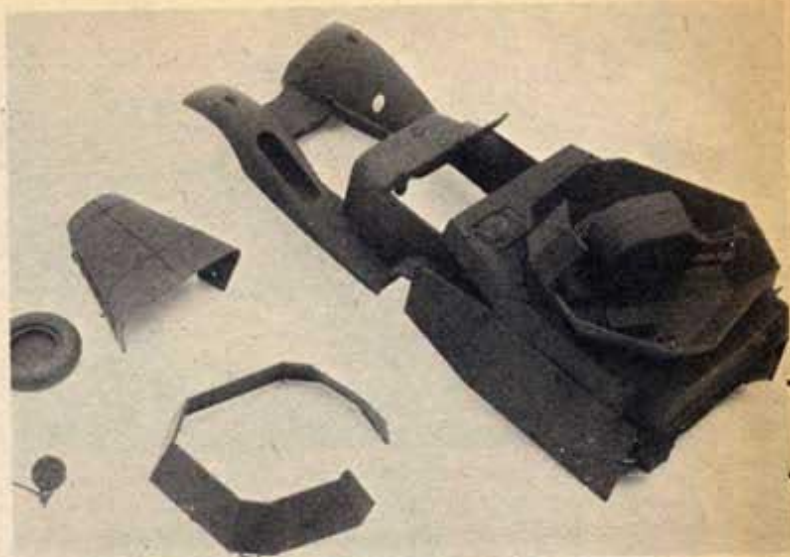


The optional "bullet-holed" armor pieces from the Panzerkampfwagen skirt armor are cut in half and glued to stock skirt.



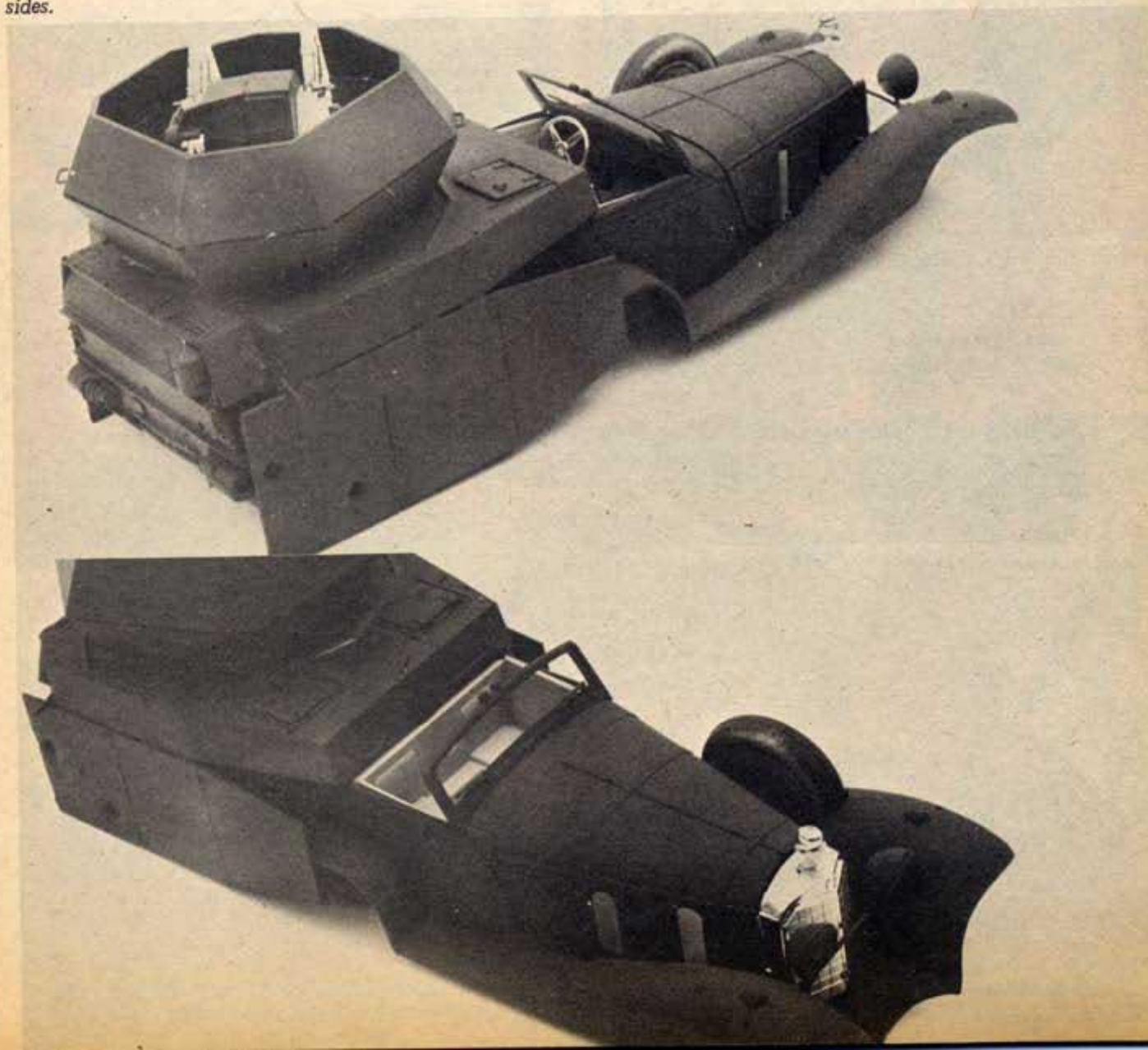


The stock tank rear plate (from either tank kit) is glued to the rear of the 'rod and tank top. .



Paint the turret top, hood, spare, and headlights as separate pieces before gluing any in place.

"Rommel's Rod" is stock Monogram kit from the front seats forward. Interior is painted a light grey, then glued to sides.



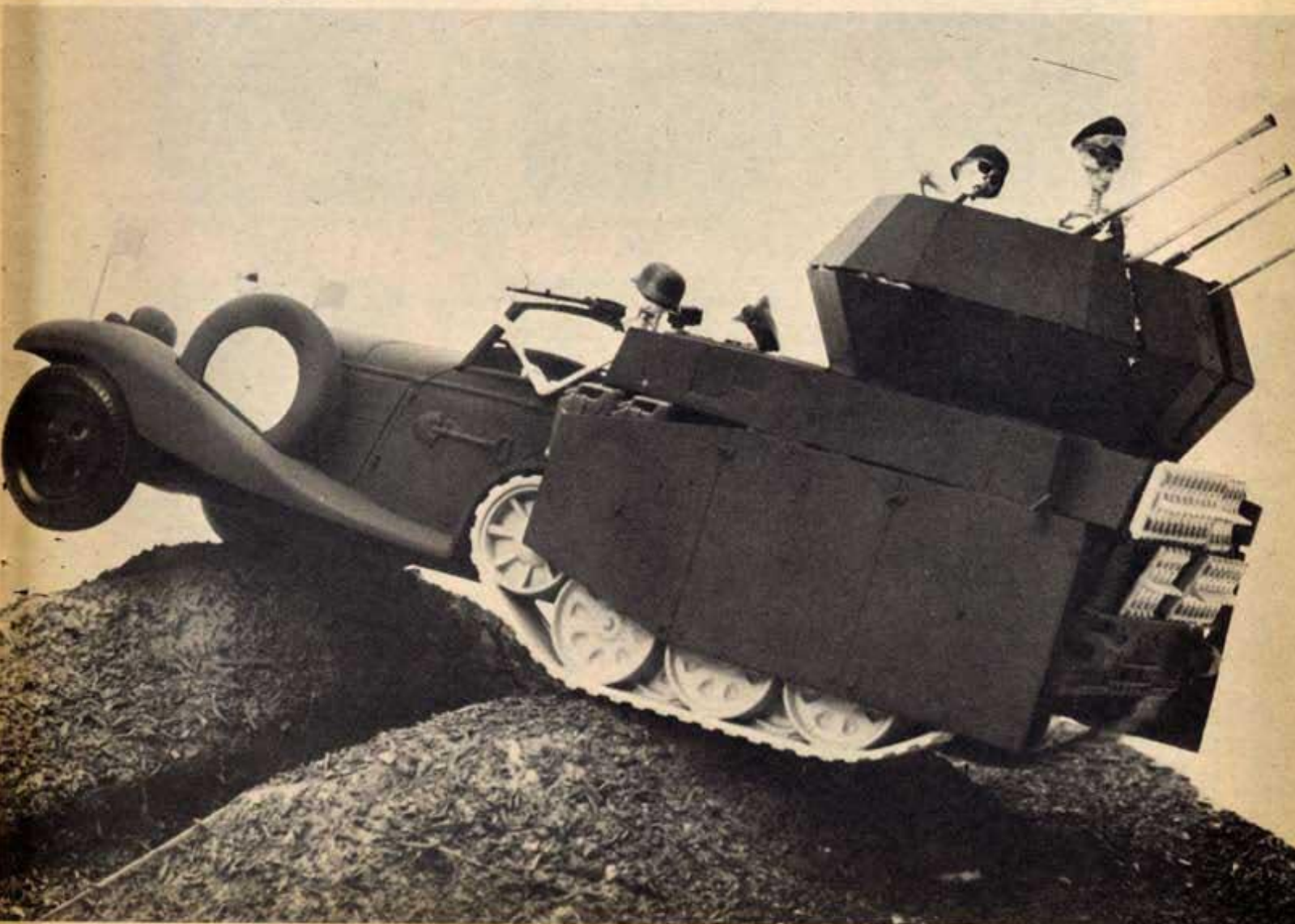


Windshield-mounted machine gun and two skeleton figures are from 'rod kit. Paint both "bones" a flat white.



Cannon from Flakpanzer kit are glued in their stock kit places. Gunners are from a second "Rommel's Rod" kit.

Spare track tread sections (the light-colored "teeth" across rear of vehicle) were used on real tanks as extra armor protection. Armored half tracks were more maneuverable than full tanks. A "frightening" 'rod it is.



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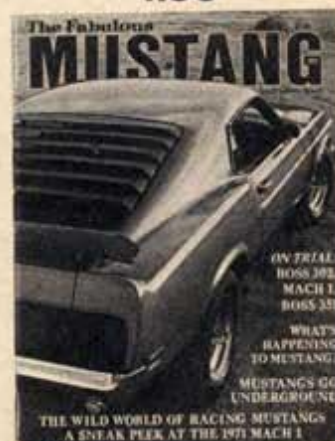
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BRICK BASH!

By Brick Price

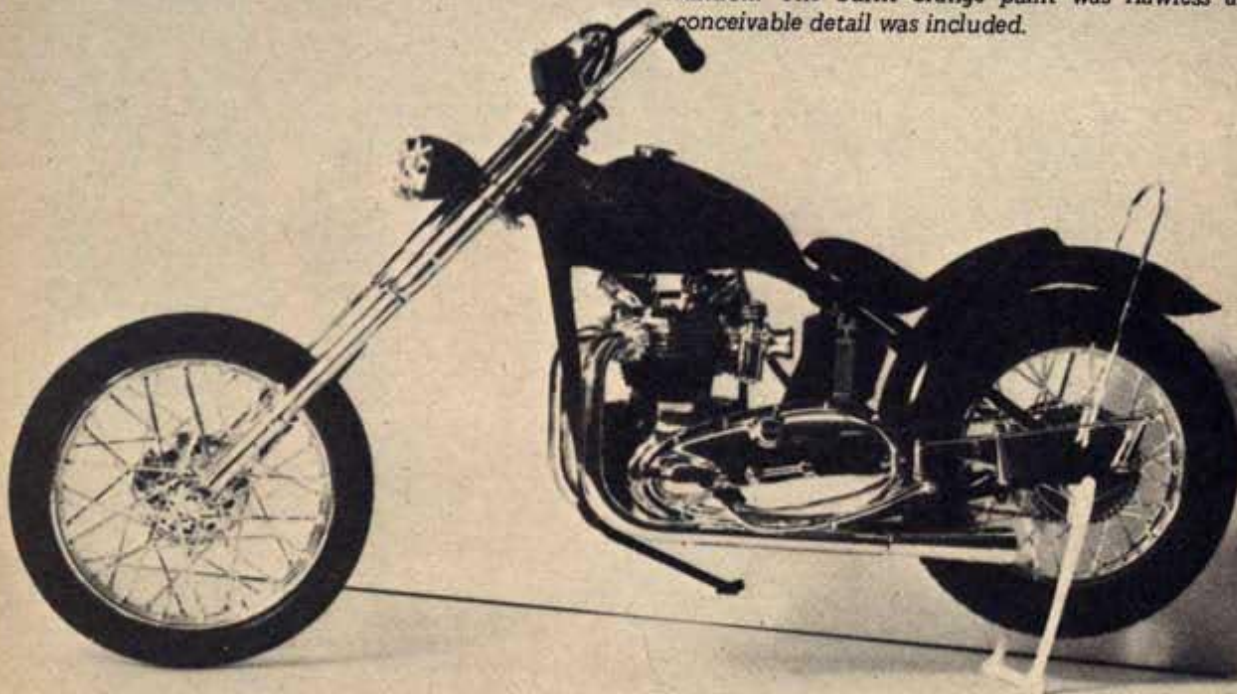
"Brick" judges a model motorcycle contest

Recently, a very successful model motorcycle contest was held at a T.G. & Y. variety store at Ladera Center in Los Angeles. The idea originally occurred when the store's assistant manager, Tom Nakasone, decided that a contest would stimulate the interest of junior (13 & under) as well as senior modelers. Tom has been teaching the boys in his area the fundamentals of model building for several months. It was the first time that many of these boys ever built a motorcycle model, but you wouldn't have realized it to look at some of the superb details included.

Tom contacted Revell, Inc. to see if they would be interested in helping promote the contest. They responded

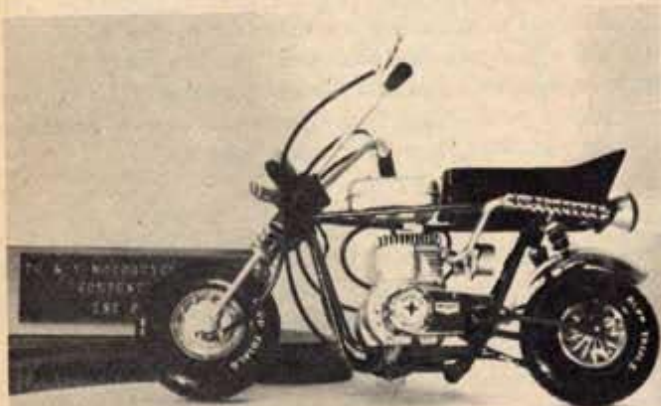
with one of their wild day-glo Carroll Shelby jackets, several racing patches and kits. Several of the modelers took advantage of the large Revell models to add such working details as lights and linkage. It was extremely difficult for Brick Price to pick a winner, since so many of the entries were well done. The original plans were to award first and second place trophies and the jacket for the overall winner, but the abundance of "box-stock" models made it necessary to include an overall "stock" category. The contest was such a success that future plans at T.G. & Y. in Ladera include a similar contest every three months.

The overall winner as well as first place for Senior Division was this clean Revell Triumph Chopper by R. Goodmanson. The forks were extended and raked in typical "Frisco" fashion. The burnt orange paint was flawless and every conceivable detail was included.





Best overall stock went to Larry Locke for his nice Revell Harley Chopped Hog.

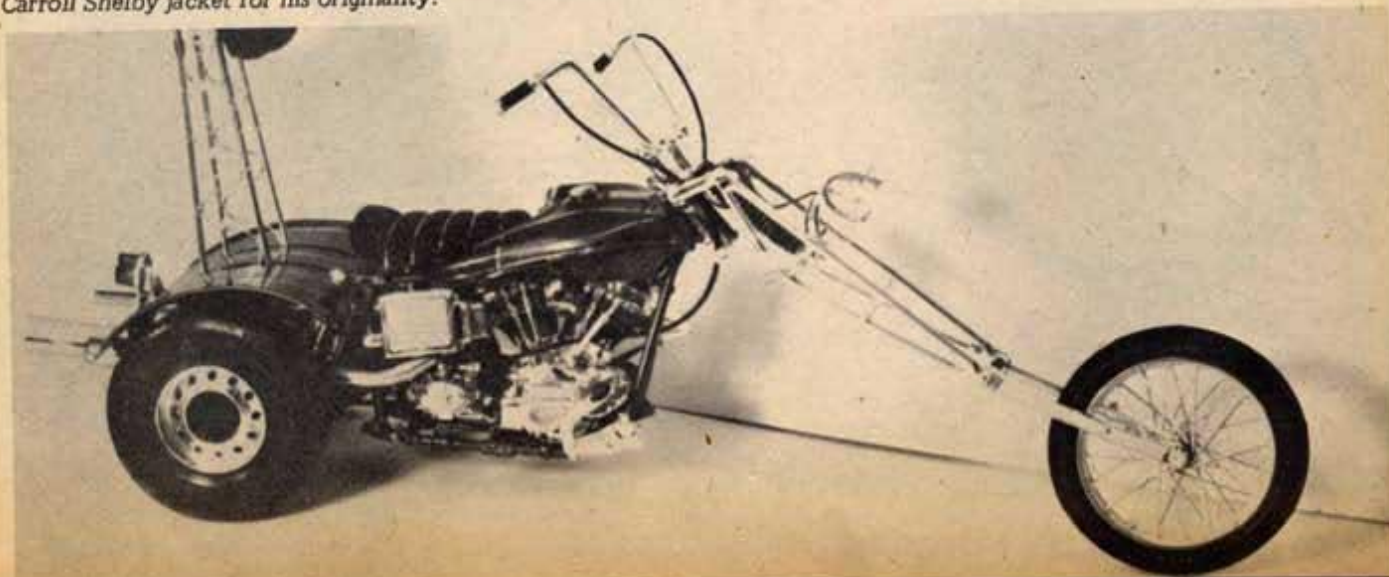


First place in the Junior Division went to Larry Locke for his Sand Rupp Mini-Bike with working lights.

Kevin Homel converted his Revell Harley Chopped Hog into a trike by using wheels from a toy he found in a dime store. The rear fenders are actually a portion of a coffee can! Grain of wheat bulbs were used for working lights. Kevin not only won second place but he also received the Carroll Shelby jacket for his originality.

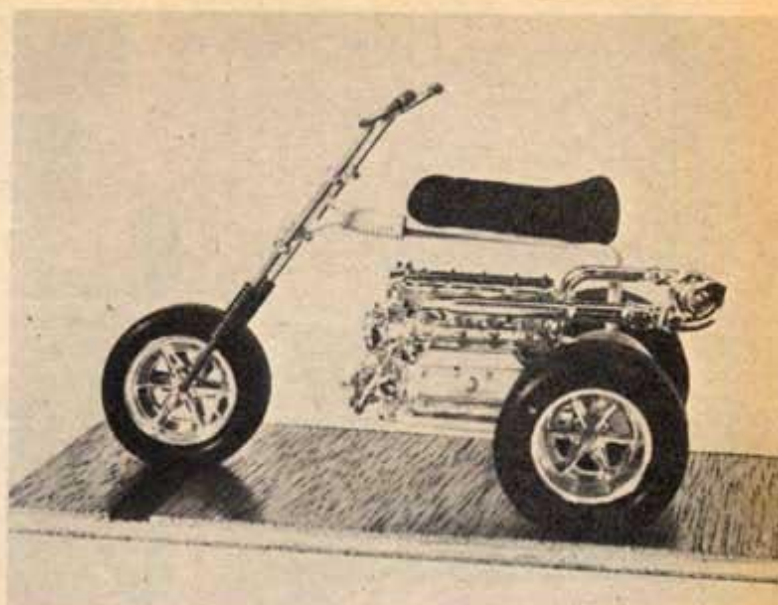


Steve Harris earned a second place trophy for his V-8 powered three wheeler.





Another of Larry Locke's entries didn't net a prize but the real upholstery on an otherwise stock Honda made it a real eye-grabber.



A great example of ingenuity was this wild little three wheeler. The frame, handlebars and shocks were made from wire and the seat is covered with upholstery. Wheels, tires and automotive engine are all M.P.C. items.



Ed Polifka went pretty far out to detail this Revell Police Bike. The headlight and running lights work, and if you depress the brake pedal the brake light lights up!

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66/Model Car Science

QUESTION SESSION

Q I have an H.O. scale Faller car set
from Germany. In reading MCS I have
noticed it advertises Aurora (and
other) cars in H.O. scale. I would like
to know if these cars will run on my
track.

Lloyd Kennedy
Southampton, On., Canada

A There are actually two scales for
H.O. cars. True H.O. is 1/87, while the
cars are built to a scale of approxi-
mately 1/66. Let's assume a few things
for calculating speed. If your layout is
24 feet in length and it takes your car
two seconds to cover the distance, the
average speed is 12 feet per second
(f.p.s.) and the formula would work as
follows:

$$12 \text{ f.p.s.} \times 60 \text{ sec} \times 60 \text{ min} = 8.1 \text{ actual mi. per hr.}$$

$$5,280 \text{ feet}$$

$$\text{or } 8.2 \times 87 = 713.4 \text{ scale m.p.h.}$$

$$8.2 \times 66 = 541.2 \text{ scale m.p.h.}$$

Q I own an H.O. track that has the
standard aluminum rails. If the track is
not used for more than two or three
days, the cars will not run because the
rails have corroded and will not make
contact. I have tried the eraser type of
track cleaner and several other types. I
have even tried sanding the rails. None
will keep the rail clean. My track is on
a 4' x 8' board, and has about 50
running feet. With a track this long, it
may take an hour or longer to clean all
four rails. Can you please tell me a
way to clean the rails that will last
more than a few days?

Tim McNeil
Paramount, Calif.

A I experienced the same trouble with
Ridgeroute when it was permanently
installed in the garage. City air is
literally an airborne garbage can with
moisture, dust and industrial grime.
The problem is doubled when you live
near the ocean, as I do. Clean the rails

thoroughly with the eraser type of
cleaner and AJ's tire and track cleaner
(TNT). Next purchase a can of contact
cleaner from an electronics store and
wipe it on the rails with a cloth. Cover
the track with a painter's dust cover
when it's not in use. Your track should
not require maintenance over once
every three months.

Q I am the leader of a model car club
at my school and am wondering if you
might have any movies on past model
shows or on how to do different things
on models such as wiring, lengthening
funny cars, etc.

Alan Paradise
LaMesa, Calif.

A There are no such movies in exist-
ence that I know of. You could paste
together a nice portfolio of past Model
Car Science articles that would help
your club a great deal. You'll find that
MCS has covered every phase of
modeling in the past and will continue
to do so in the future.

Q I have a decision to make. I don't
know which to buy, an Aurora "Tuff
One" or the Tyco-Pro. I know how to
work on the Aurora, but not on Tyco.
I think the Tyco-Pro's are the best bet,
if you can clean them when they get
dirty with carbon. If you can, please
tell me how you do it.

Robert Lynch
Springfield, Ill.

A I wish all of my major crises were as
simple as yours! As far as I'm con-
cerned there is no decision to be made
— the Tyco-Pro is far superior to
anything available now that is box
stock. Carbon deposits shouldn't be a
problem on the Tyco-Pro but you can
snap the rear axle and engine out of
the chassis for cleaning. A simpler
method would be to dip the entire car
into Champion's Mo-To-Clean.

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